SOLICITATION/CONTRACT/ORDER FOR COMMERCIAL ITEMS
OFFEROR TO COMPLETE BLOCKS 12, 17, 23, 24, & 30

1. REQUISITION NUMBER	PAGE 1 OF 88

2. CONTRACT NO.	3. AWARD/EFFECTIVE DATE	4. ORDER NUMBER	5. SOLICITATION NUMBER	6. SOLICITATION ISSUE DATE
DAAB15-00-A-1006	DEC 16 1999			

7. FOR SOLICITATION INFORMATION CALL:	a. NAME	b. TELEPHONE NUMBER (No collect calls)	8. OFFER DUE DATE/LOCAL TIME
	Jane Borden	(703)325-1709	

9. ISSUED BY	CODE W4GV45	10. THIS ACQUISITION IS	11. DELIVERY FOR FOB DESTINATION UNLESS BLOCK IS MARKED	12. DISCOUNT TERMS
USA CECOM ACQUISITION CTR – WASHINGTON 2461 EISENHOWER AVENUE (AMSEL-AC-WB-B) ALEXANDRIA, VA 22331-0700		[X] UNRESTRICTED [ ] SET ASIDE: ____% FOR [ ] SMALL BUSINESS [ ] SMALL DISAV. BUS. [ ] 8(A) SIC: SIZE STANDARD:	[ ] SEE SCHEDULE [ ] 13a. THIS CONTRACT IS A RATED ORDER UNDER DPAS (15 CFR 700) 13b. RATING: DO 14. METHOD OF SOLICITATION: [ ] RFQ [ ] IFB [ ] RFP	Net 30

15. DELIVER TO:	CODE	16. ADMINISTERED BY	CODE
In Accordance With Individual Task Orders		See Block 9	

17a. CONTRACTOR/ OFFEROR	CODE 2R341	FACILITY CODE	18a. PAYMENT WILL BE MADE BY	CODE
Radian, Inc. 5845 Richmond Hwy, Suite 725 Alexandria, VA 22303-1865			In Accordance With Individual Task Orders	

[ ] 17b. CHECK IF REMITTANCE IS DIFFERENT AND PUT SUCH ADDRESS IN OFFER

18b. SUBMIT INVOICES TO ADDRESS SHOWN IN BLOCK 18a. UNLESS BLOCK BELOW IS CHECKED [ ] SEE ADDENDUM

19. ITEM NO.	20. SCHEDULE OF SUPPLIES/SERVICES	21. QUANTITY	22. UNIT	23. UNIT PRICE	24. AMOUNT
	See Attached Pages (Attach Additional Sheets as Necessary)				

25. ACCOUNTING AND APPROPRIATION DATA	26. TOTAL AWARD AMOUNT (For Govt. Use Only)

[ ] 27a. SOLICITATION INCORPORATES BY REFERENCE FAR 52.212-1, 52.212-4. FAR 52.212-3 AND 52.212-5 ARE ATTACHED. [ ] ARE [ ] ARE NOT ATTACHED

[ ] 27b. CONTRACT/PURCHASE ORDER INCORPORATES BY REFERENCE FAR 52.212-4. FAR IS ATTACHED, ADDENDA [X] ARE [ ] ARE NOT ATTACHED

28. CONTRACTOR IS REQUIRED TO SIGN THIS DOCUMENT AND RETURN 1	29. AWARD OF CONTRACT: REFERENCE ____ OFFER
[ ] TO ISSUING OFFICE. CONTRACTOR AGREES TO FURNISH AND DELIVER ALL ITEMS SET FORTH OR OTHERWISE IDENTIFIED ABOVE AND ON ANY ADDITIONAL SHEETS SUBJECT TO THE TERMS AND CONDITIONS SPECIFIED HEREIN.	[ ] DATED ____, YOUR OFFER ON SOLICITATION (BLOCK 5), INCLUDING ANY ADDITIONS OR CHANGES WHICH ARE SET FORTH

30a. SIGNATURE OF OFFEROR/CONTRACTOR	31a. UNITED STATES OF AMERICA (SIGNATURE OF CONTRACTING OFFICER)
T. B. Fleischer	Ana M. Kimberly

30b. NAME AND TITLE OF SIGNER	30c. DATE SIGNED	31b. NAME OF CONTRACTING OFFICER	31c. DATE SIGNED
Timothy B. Fleischer President	16 Dec 99	Ana M. Kimberly Contracting Officer	DEC 16 1999

32a. QUANTITY IN COLUMN 21 HAS BEEN	33. SHIP NUMBER	34. VOUCHER NUMBER	35. AMOUNT VERIFIED CORRECT FOR
[ ] RECEIVED [ ] INSPECTED [ ] ACCEPTED, AND CONFORMS TO THE CONTRACT, EXCEPT AS NOTED	[ ] PARTIAL [ ] FINAL		
	36. PAYMENT [ ] COMPLETE [ ] PARTIAL [ ] FINAL		37. CHECK NUMBER
32b. SIGNATURE OF AUTHORIZED GOVT. REPRESENTATIVE	32c. DATE	38. S/R ACCOUNT NUMBER	39. S/R VOUCHER NUMBER	40. PAID BY
		42a. RECEIVED BY (Print)		
41a. I CERTIFY THIS ACCOUNT IS CORRECT AND PROPER FOR PAYMENT				
41b. SIGNATURE AND TITLE OF CERTIFYING OFFICER	41c. DATE	42b. RECEIVED AT (Location)		
		42c. DATE REC'D (YY/MM/DD)	42d. TOTAL CONTAINERS	

AUTHORIZED FOR LOCAL REPRODUCTION

SEE REVERSE FOR OMB CONTROL NUMBER AND PAPERWORK BURDEN STATEMENT

STANDARD FORM 1449 (10-95)
Prescribed by GSA FAR (48 CFR) 53.212

SOLICITATION/CONTRACT/ORDER FOR COMMERCIAL ITEMS
OFFEROR TO COMPLETE BLOCKS 12, 17, 23, 24, & 30

1. REQUISITION NUMBER	PAGE 1 OF 88

2. CONTRACT NO.	3. AWARD/EFFECTIVE DATE	4. ORDER NUMBER	5. SOLICITATION NUMBER	6. SOLICITATION ISSUE DATE
DAAB15-00-A-1006				

7. FOR SOLICITATION INFORMATION CALL:	a. NAME	b. TELEPHONE NUMBER (No collect calls)	8. OFFER DUE DATE/ LOCAL TIME:
☛	**Jane Borden**	(703)325-1709	

9. ISSUED BY	CODE W4GV46	10. THIS ACQUISITION IS	11. DELIVERY FOR FOB	12. DISCOUNT TERMS
USA CECOM ACQUISITION CTR – WASHINGTON **2461 EISENHOWER AVENUE (AMSEL-AC-WB-B)** **ALEXANDRIA, VA 22331-0700**		[x] UNRESTRICTED [___] SET ASIDE: _____% FOR [__] SMALL BUSINESS [__] SMALL DISAV. BUS. [__] S(A) SIC: SIZE STANDARD:	DESTINATION UNLESS BLOCK IS MARKED [___]SEE SCHEDULE [___] 13a. THIS CONTRACT IS A RATED ORDER UNDER DPAS (15 CFR 700) 13b. RATING D3 14. METHOD OF SOLICITATION [___]RFQ [___ [IFB [___] RFP	Net 30

15. DELIVER TO:	CODE	16. ADMINISTERED BY	CODE
In Accordance With Individual Task Orders		**See Block 9**	

17a. CONTRACTOR/ OFFEROR	CODE 2R341	FACILITY CODE	18a. PAYMENT WILL BE MADE BY	CODE
Radian, Inc. **5845 Richmond Hwy, Suite 725** **Alexandria, VA 22303-1865**			**In Accordance With Individual Task Orders**	
[__]17b. CHECK IF REMITTANCE IS DIFFERENT AND PUT SUCH ADDRESS IN OFFER			18b. SUBMIT INVOICES TO ADDRESS SHOWN IN BLOCK 18a. UNLESS BLOCK BELOW IS CHECKED [___] SEE ADDENDUM	

19. ITEM NO.	20. SCHEDULE OF SUPPLIES/SERVICES	21. QUANTITY	22. UNIT	23. UNIT PRICE	24. AMOUNT
	See Attached Pages (Attach Additional Sheets as Necessary)				

25. ACCOUNTING AND APPROPRIATION DATA	26. TOTAL AWARD AMOUNT *(For Govt. Use Only)*

[__] 27a. SOLICITATION INCORPORATES BY REFERENCE FAR 52.212-1, 52.212-4. FAR 52.212-3 AND 52.212-5 ARE ATTACHED. [__] ARE [__] ARE NOT ATTACHED

[__] 27b.. CONTRACT/PURCHASE ORDER INCORPORATES BY REFERENCE FAR 52.212-4. FAR IS ATTACHED, ADDENDA [**X**] ARE [__] ARE NOT ATTACHED

28. CONTRACTOR IS REQUIRED TO SIGN THIS DOCUMENT AND RETURN _1___	29. AWARD OF CONTRACT: REFERENCE _____ OFFER
[__] TO ISSUING OFFICE. CONTRACTOR AGREES TO FURNISH AND DELIVER ALL ITEMS SET FORTH OR OTHERWISE IDENTIFIED ABOVE AND ON ANY ADDITION-AL SHEETS SUBJECT TO THE TERMS AND CONDITIONS SPECIFIED HEREIN.	[__] DATED _____, YOUR OFFER ON SOLICITATION (BLOCK 5), INCLUDING ANY ADDITIONS OR CHANGES WHICH ARE SET FORTH

30a. SIGNATURE OF OFFEROR/CONTRACTOR	31a. UNITED STATES OF AMERICA *(SIGNATURE OF CONTRACTING OFFICER)*

30b. NAME AND TITLE OF SIGNER	30c. DATE SIGNED	31b. NAME oF CONTRACTING OFFICER	31c. DATE SIGNED
		Ana M. Kimberly **Contracting Officer**	

32a. QUANTITY IN COLUMN 21 HAS BEEN	33. SHIP NUMBER	34. VOUCHER NUMBER	35. AMOUNT VERIFIED CORRECT FOR
[__] RECEIVED [__] INSPECTED [__] ACCEPTED, AND CONFORMS TO THE CONTRACT, EXCEPT AS NOTED	PARTIAL FINAL		
	36. PAYMENT [__] COMPLETE [__] PARTIAL [__] FINAL		37. CHECK NUMBER

32b. SIGNATURE OF AUTHORIZED GOVT. REPRESENTATIVE	32c. DATE	38. S/R ACCOUNT NUMBER	39. S/R VOUCHER NUMBER	40. PAID BY
		42a. RECEIVED BY *(Print)*		
41a. I CERTIFY THIS ACCOUNT IS CORRECT AND PROPER FOR PAYMENT				
41b. SIGNATURE AND TITLE OF CERTIFYING OFFICER	41c. DATE	42b. RECEIVED AT *(Location)*		
		42c. DATE REC'D *(YY/MM/DD)*	**42d. TOTAL CONTAINERS**	

BPA COVER PAGE

BEST VALUE

BLANKET PURCHASE AGREEMENT

FEDERAL SUPPLY SCHEDULE

In the spirit of the Federal Acquisition Streamlining Act (FASA), the CECOM Acquisition Center - Washington and Radian Inc. enter into an agreement to facilitate the acquisition of Research & Development Support Services, Systems Engineering Integration Support and Information Technology Services from the General Service Administration (GSA) Federal Supply Schedule (FSS) Contract(s): GS-35F-0695J.

Federal Supply Schedule contract BPA's reduce contracting and open market costs. Teaming Arrangements are permitted with Federal Supply Schedule BPA holders in accordance with the terms of their GSA contracts.

The parties agree that the Terms and Conditions set forth in the above referenced GSA FSS contract(s), this BPA and those set forth in the individual delivery order shall govern performance on that order. In no event will the Terms and Conditions set forth in either this BPA or the individual order be construed as changing the scope of the GSA FSS Contract(s) set forth above.

ANA M. KIMBERLY	TIMOTHY B. FLEISCHER
Contracting Officer	President
	Radian Inc.

If "Teaming" and your BPA Team Arrangement permits direct ordering to Team Partners, have each Team Partner sign and date below indicating agreement and compliance with the Terms & Conditions set forth in this document.

On this page, each Team Partner must provide the company name, title of individual, and GSA contract number.

Not Applicable at this Time

_____

BPA Teaming Partner DATE

Title

Company Name GSA Contract Number:

Not Applicable at this Time

_____

BPA Teaming Partner DATE

Title

Company Name GSA Contract Number:

Not Applicable at this Time

_____

BPA Teaming Partner DATE

Title

Company Name GSA Contract Number:

(add/delete signature blocks as needed to accommodate team size)

The BPA Holder's Program Manager may make unilateral changes to the makeup of the BPA's Team. This may occur at any time during the life of the BPA. To make these changes the Program Manager must notify the Government in writing and provide a copy of this page with the appropriate signature(s). Note that any order issued prior to the change must be completed with the Team membership that was current at the time the order was placed unless agreed to by the ordering PCO.

CECOM Acquisition Center - Washington
BLANKET PURCHASE AGREEMENT
R&D SUPPORT SERVICES, SYSTEMS ENGINEERING AND INTEGRATION SUPPORT

Pursuant to General Services Administration (GSA) Federal Supply Schedule (FSS) contract number(s) GS-35F-0695J ("Contract(s)"), a Blanket Purchase Agreement (BPA) is hereby established between Radian Inc. and the CECOM Acquisition Center - Washington, D.C under the terms and conditions of the above stated contract(s) and the following terms and conditions incorporated in this BPA:

ADMINISTRATIVE DATA

Primary Point of Contact:

Ms. Bernadine Atwell
Director, Contracts and Purchasing
Batwell@radianinc.com
5845 Richmond Highway
Suite 725
Alexandria, VA 22303-1865
Telephone: (703) 329-9300 (ext. 658)
FAX: (703) 329-9510

Alternate Point of Contact:

Mr. Jeffrey Gumport
BPA Program Manager
Jgumport@radianinc.com
5845 Richmond Highway
Suite 725
Alexandria, VA 22303-1865
Telephone: (703) 329-9300 (ext. 237)
FAX: (703) 329-9510

1. Are you a Small Business under the SIC Code 8711 (Engineering Services YES_____NO___X___
2. Are you a Small Business Administration (SBA) certified Small Disadvantaged Business (SDB)? YES_____NO___X___
3. Are you a Woman-Owned Business? YES_____NO___X___
4. CAGE CODE:_____2R341_____
5. DUNS NUMBER:_____02-427-5633_____
6. TIN:_____54-1064489_____

Cognizant DCMC Office (Include complete address):

Ms. Kathleen I. Jackson

DCMC Baltimore
Attn: DCMDE-GTOG (Ms. Kathleen Jackson)
217 E. Redwood Street, Suite 1800
Baltimore, MD 21202-5299
Telephone: (410) 962-9914
FAX: (410) 962-3524

DCMC POC Email Address:

E-Mail: kjackson@dcmde.dla.mil

Cognizant DFAS Office (Include complete address):

DFAS
Columbus Center
South Entitlement Operations
P.O. Box 182264
Columbus, OH 43218-2264
Telephone (Toll Free): 1-800-756-4571
Telephone: (614) 693-7872

Express Mail Address:

DFAS
Columbus Center
South Entitlement Operations
4280 E. Fifth Ave.
Columbus, OH 43219-1879

DFAS POC Email Address:
Michelle Wilder (no e-mail address available)

(A) AUTHORITY
This BPA is entered into pursuant to the terms of the BPA holder's FSS contract and FAR 8.404(b) (4).

(B) DESCRIPTION OF AGREEMENT
Under this agreement, the BPA holder will provide RDT&E Support Services (RDT&ESS), systems engineering integration support, support for system acquisition programs and development planning projects during all phases of the

acquisition cycle, and information technology support. These services will be provided when ordered by an authorized Contracting Officer during the specified period stated in section G.13 of this BPA.

RDT&E Support Services (MOBIS) YES_____ NO__X__
Computer Related Services (SIN 132-51) YES___X__ NO_____

(C) SERVICES AVAILABLE UNDER THIS BPA

Attachment A (provided by the BPA holder) contains a listing of all services. The listing shall contain the BPA holder's name, FSS contract number, FSS ordering number, name, and description for each labor category which may be ordered under this BPA with accompanying FSS and discounted rates including overtime rates where applicable. Pricing shall be provided for all years currently covered under the BPA holder's FSS contract. Each BPA holder or BPA team must check which site(s) services are being offered under this BPA (provide separate price lists for different locations as necessary).

_X__ Fort Belvoir, VA
_X__ Fort Hood, TX
_X__ Aberdeen Proving Ground, MD
_X__ Fort Leonard Wood, MO
_X__ Picatinny, NJ
_X__ Military District of Washington
_X__ Fort Bragg, NC
_X__ BPA Holder Facility
_X__ Others (Please list)
Kings Bay, GA
Groton, CT

(D) PRICING

The prices (loaded labor rates) included on the BPA list (or applicable "discounted" rates submitted in a proposal response to an RFQ resulting in the award of an order) that are in effect on the effective date of an order shall govern that order's basic performance period. With regard to any option for an additional period of performance, the prices for the option period shall be established at the time of the initial order, using the BPA list of rates for the option period (or applicable discounted rates) and the established prices shall govern if the option is exercised; provided that if the contractor has been authorized a rate increase culminating from a negotiation under the Economic Price Adjustment provision of their GSA Schedule, and if such rates are approved and incorporated in the BPA before the exercise of the option, the increased rates would become applicable on the effective date as provided in their GSA Schedule to a later exercised option. Likewise, if there is a rate decrease in the GSA Schedule, the reduced rates would become applicable. CAVEAT: The contractor shall submit a request for a price increase as described above in a timely manner as no price increase shall apply to an order absent approval by the Contracting Officer and modification of the order to reflect the increase. The BPA holder shall update the

BPA price list within 24 hours of a change in Schedule prices to insure that the BPA pricing remains current.

The BPA holder can voluntarily reduce prices at any time by giving 24 hour advance notice (by facsimile or electronic-mail) to the Contracting Officer. When in effect, the new price list will be posted on the BPA holder's Internet site and made immediately available to all authorized BPA users. This BPA does allow for additional discounts if a "large order" is placed at one time. Whether an order is large enough to qualify for a discount is subject to the discretion of the BPA holder.

The BPA holder may also increase BPA prices whenever the GSA schedule rates increase. Any BPA price increase shall not take effect until the Contracting Officer receives written notification. In no event will the prices under this BPA exceed those on the applicable GSA schedule. Any order already issued shall not be affected by any change to BPA pricing (except as changes may apply to option years as described in D.1. above, if applicable). The prices offered under this BPA will undergo annual review by the Contracting Officer.

(E) MODIFICATION PROPOSALS
Modification proposals to this BPA shall be submitted to CECOM Acquisition Center – Washington.

(F) PREVAILING TERMS AND CONDITIONS
All orders placed against this BPA are subject to the terms and conditions of the GSA FSS Contract and all clauses and provisions in full text or incorporated by reference herein:

(F.1). Incorporated by reference:

FAR 52.245-5 GOVERNMENT PROPERTY (COST-REIMURSEMENT, TIME-AND-MATERIAL, OR LABOR-HOUR CONTRACTS) (JAN 1986)

(F.2) In full text are:

(F.2.A) ORGANIZATION CONFLICT OF INTEREST

Notice of Inclusion of Organizational Conflict of Interest Clause

a. The provisions of FAR Subpart 9.5 concerning organizational conflicts of interest govern orders issued under this BPA.

b. Potential conflicts may exist in accordance with FAR 9.505-1 through 9.505-4.

c. The Contracting Officer will determine on a case-by-case, order by order, basis whether a conflict of interest is likely to arise.

d. To avoid or mitigate a potential conflict, the Contracting Officer will impose appropriate constraints, such as the following.

1. The contractor agrees that if it provides under a BPA order systems engineering and technical guidance for systems and programs but does not have overall contractual responsibility, it will not be allowed to be awarded a contract to supply the system or any of its major components or be a subcontractor or consultant to a supplier of the system or any of its major components (FAR 9.505-1).

2. The contractor agrees that if it assists in the preparation of nondevelopmental specifications or of work statements for a system or services for a competitive acquisition under a BPA order, it will not be allowed to furnish these items, either as a prime contractor, a subcontractor or as a consultant (FAR 9.505-2).

3. The contractor agrees that if it gains access to proprietary data of other companies, it will protect such data and it will not use such proprietary data in supplying systems or components in future competitive procurements (FAR 9.505-4). In addition, the contractor agrees to protect the proprietary data and rights of other organizations disclosed to the contractor during performance of any Task Order with the same caution that a reasonably prudent contractor would use to safeguard highly valuable property. The contractor also agrees that if it gains access to the proprietary information of other companies, that it will enter into an agreement with the other companies to protect their information from unauthorized use or disclosure for as long as it remains proprietary and refrain from using the information for any purpose other than that for which it was furnished.

4. The contractor agrees that it shall not distribute reports, data or information of any nature arising from its performance under this BPA, except as provided by the Task Order or as may be directed by the Contracting Officer.

5. Subcontracts: The contractor shall include the provisions at 3 and 4, including this paragraph, in agreements with consultants or subcontracts of any tier which involve access to information covered above. The use of this clause in such subcontracts shall be read by substituting the word “consultant” or "subcontractor" for the word "contractor" whenever the latter appears.

6. The contractor further agrees that it will neither evaluate nor advise the Government with regard to its own products or activities. The contractor will objectively evaluate or advise the Government concerning products or activities of any prospective competitors.

7. Government representatives shall have access to contractor's premises and right to inspect all pertinent books and records in order to insure that the contractor is in compliance with part 9 of the FAR and this provision.

8. The contractor agrees to develop, maintain and administer the following described specific programs:

“To thoroughly educate its employees, through formal training, company policy, information directives and procedures, in an awareness of the legal provisions of FAR 9 subpart 9.5 and its underlying policy and philosophy principles so that each employee will know and understand the provisions of this subsection and the absolute necessity of safeguarding information under a Task Order from anyone other than the contractor's employees who have a need to know, and the U.S. Government.”

9. The term contractor herein used means (1) the organization (hereinafter referred to as "it or its") entering into this agreement with the Government (2) all business organizations which it may merge, join or affiliate with now or in the future and in any manner whatsoever or which hold or may obtain, by purchase or otherwise, direct or indirect control of it. (3) its parent organization if any and any of its present future subsidiary, associates, affiliates, or holding companies (4) any organization or enterprise over which it has direct or indirect control now or in the future.

10. The organizational conflict of interest constraints established by the order are for the period of the order, plus 2 years, provided that the agreement to protect proprietary information from unauthorized use or disclosure lasts as long as the information remains proprietary unless the agreement with the other company provides otherwise.

11. The contractor may submit a response to any terms of constraint proposed by the Contracting Officer for the purpose of avoiding or mitigating a conflict.

(F.2.B) Government Facilities.

Government facilities will be provided by the Government to the BPA holder as specified in the order but will generally be in accordance with the provisions of this clause. Failure by the BPA holder to comply with the provisions of this clause will release the Government, without prejudice, from its obligation to provide base support by the date(s) required. If warranted, and if the BPA holder has complied with the provisions of this clause, the contractor may seek an equitable adjustment if the Government fails to provide base support by the date(s) and in accordance with the order.

a. Government facilities will be determined at the time of execution of each order. By way of general guidance, when directed to “collocate”, contractor personnel will be provided with the following: 1 Desk, 1 Chair, 1 Phone and 1 Computer. In addition, Government facility support will generally include access to and use of Government-controlled working space, material, equipment, automatic data processing services, or other support including the use of the Defense Switched Network (DSN) (for official phone calls only), which the Government determines can be made available at, or through, any Army installation where orders issued under this BPA will be performed.

b. All government property which the contractor is authorized to use under this base support provision shall remain in the custody of the Government, for accountability purposes. The contractor shall not remove such property from the Government facility, unless approved in writing by the Contracting Officer, and such property is furnished to the contractor under Government Property clause. Government property in he possession of the BPA holder, provided through the Government's facilities provision, will be used and managed in accordance with the Government Property clause.

c. Unless otherwise stipulated in the order, support will be provided on a no-charge-for-use basis and the value will be a part of the Government’s contract consideration.

d. The BPA holder agrees that in the performance of this contract or any major subcontract, no direct or indirect costs for property will be incurred, if the Government determines that property is available at, or through any Government installation where this contract will be performed. Only the prior written approval of the Contracting Officer can relieve the BPA holder from this restriction.

(G) BPA SPECIFIC TERMS AND CONDITIONS:

(G.1) PROHIBITED ACTIVITIES

The BPA holder shall not perform tasks under any resultant order which involve the following:

a. preparation of any statement of requirements, objectives, or needs to be procured by the Government for support services to be acquired under the BPA, or by any other contract action under this program;

b. evaluation of the qualifications of a potential source or any proposal submitted to obtain an order under this BPA;

c. formulation of “best value” criteria, acquisition plans, solicitations or strategies for an order under this BPA; and

d. preparation of documentation for future orders for support services.

(G.2) SEGREGATION OF COSTS

a. The “Payments under Time-and-Materials and Labor-Hour Contracts” clause provides for reimbursement to the contractor of costs incurred for certain items and services purchased directly for the contract, subject to certain limitations set forth in the clause. Such items may include the lease/purchase of equipment, travel expenses for Government-directed travel, consumable materials, tuition and registration fees for specialized training, and other services or items acquired for the Government’s account under the Government Property clause. The items and services which the BPA holder is authorized to purchase on a cost-reimbursement basis shall be the items and services described in the order(s) issued to the BPA holder as authorized for purchase.

b. Where and if appropriate to assure proper obligation of funds, the contractor will be instructed to segregate the cost of non-labor supply items and to identify supply items with a unit cost of $100,000 or more when submitting a proposal for an order. The BPA holder shall segregate all costs associated with other direct costs authorized to be purchased on a cost-reimbursement basis (to be specified in each order) from other costs (labor hour effort) associated with the performance of this contract in such a manner that the costs subject to reimbursement under each order shall be readily ascertainable.

c. The “Ceiling Price” referred to in the “Payments under Time and Materials and Labor-Hour Contracts” clause shall be the ceiling price as stated in each order. Where and if appropriate, subceilings will be used for different types or years of funds to assure proper obligation of funds in accordance with Government fiscal law. Orders, including options, may be funded incrementally with an allotment. In this situation, the level of allotment represents the “Ceiling Price”.

d. The availability of obligated funds for performance may be limited by time. In that case, an order will identify a particular CLIN or CLINs, the accounting classification reference numbers for the accounting classifications funding the CLIN or CLINs, the date of performance beyond which there is no legal liability on the part of the Government for payment, and the period of performance covered by the obligation.

(G.3) REPRESENTATIVE OF THE CONTRACTING OFFICER

a. The following names are the Contracting Officer's Representatives at the appropriate office is (are) authorized to act as an official representative of the Contracting Officer.

(To be specified when orders are issued)

b. The above are designated by the Contracting Officer and are authorized to act within the limitations specified herein and written restrictions specifically imposed under the terms of the contract and by the Contracting Officer. This authority shall extend to the following: inspection, acceptance, or rejection of work.

c. This designation does not include authority to direct changes in scope, price, or terms or conditions of the contract. The authority herein also does not include authority to execute modifications to the contract which require the signature of the Ordering Contracting Officer, or to bind the Government by agreement in terms of a proposed contract change.

(G.4) LABOR HOUR ORDERS

a. The BPA holder shall furnish all the necessary qualified personnel, materials, facilities and management resources to furnish the services set forth in the Statement of Work (SOW) or Performance Work Statement (PWS) within the terms specified and at the price(s) stated. Delivery will be in accordance with individual task orders. All orders will be issued or modified at the contract-year labor rates in effect at the time of the effective date of the order or modification.

b. It is understood and agreed that the BPA holder shall use in the performance of the contract, the labor categories and hours specified in each order.

c. The labor categories and hours specified in each order represent the best estimate of the services to be performed. To enhance flexibility and to allow the BPA holder to determine the optimum labor mix for the order the BPA holder may without notice to the Government, increase or decrease the number of hours for each category specified in the individual order to the extent that the ceiling prices for the labor CLIN(s) are not exceeded. The BPA holder will not be paid more than the ceiling price of any individual order.

d. Government Reimbursement of BPA holder-Incurred Training Costs in Support of Mission-Unique Requirements. In situations where the “Government User” being supported by an order under the basic contract requires some “unique” level of support beyond the minimum requirements of the SOW because of program/mission-unique needs, then the BPA holder may directly charge the contract order in order to obtain the unique training required for successful SOW support if authorized in the order. Such education/training might be provided by Government entities such as DSMC, etc. or by “third party” private entities such as companies who specialize in providing professional or specialized training/education seminars/classes. Direct labor expenses, and travel related expenses allowable under the Joint Travel Regulations (JTR) and related to the training, may be billed as an ODC on a cost reimbursement basis.

Tuition/Registration/Book fees (costs) that may be applicable to an individual course/seminar are recoverable as a direct cost if specifically authorized in a particular order. Documentation will be required to support the billing of such costs against the order which authorized payment.

e. In the event the BPA holder expends fewer hours than set forth in the individual order, the total order shall be adjusted to reflect the actual number of hours expended and the final order price. In no case will the final price exceed the ceiling price of the order.

f. Payment under individual orders for CLINs (to be specified in order) will be in accordance with FAR 52.232-7 entitled "Payments under Time-and-Materials and Labor-Hour Contracts". Withholding of amounts due as contemplated by the clause will apply to the total contract and not to individual orders. Withholding will not exceed $50,000.00 for the entire contract, regardless of the number of orders issued against the contract, and will apply to the first order and continue until the maximum withholding amount is reached. To facilitate close-out of early orders the amount withheld may be transferred to any subsequent active order. Ceiling price, as used in the clause, applies to individual orders not to the total contract.

g. Personnel Changes: Any personnel, proposed as substitutes or replacements for personnel originally proposed for a Task Order, who become unavailable during the performance of the Task Order, shall be provided to the Government for review and approval. Substitutes must have equal or greater qualifications.

h. Payment procedures shall be in accordance with the BPA holder FSS contract. Payment will be made by the address specified in the individual delivery order.

(G.5) PAYMENT OF WORK PERFORMED

Hours of Work and Overtime

a. Work within the limits of the United States and its possessions shall not normally exceed eight (8) hours per day or forty (40) hours per normal work week. Work hours OCONUS shall correspond to hours worked by comparable Government personnel, provided a maximum of forty (40) hours per week is not exceeded.

b. Overtime must be approved by the Contracting Officer or designated representative. Overtime will be paid as straight time for exempt employees, and overtime for non-exempt employees at the rates set forth in the BPA list. There will be no uncompensated overtime. All approved overtime is subject to the "Ceiling Price" for the Task Order.

c. Authorized holidays for contractor personnel performing work at a Government installation shall correspond with Government holidays. Regular Government holidays are as follows:

New Years Day	Labor Day	Martin Luther King Day
Columbus Day	Presidents' Day	Veterans' Day
Memorial Day	Thanksgiving Day	Independence Day
Christmas Day		

Authorized holidays for contractor personnel located OCONUS will be addressed in the individual task orders.

d. Billable hours consist of:

*The number of normal hours that services are actually performed under the order;
* Hours may be billed for any local holiday which the area Commander administratively determines to be a non-work day;
*The number of hours that are necessary for travel by contractor's employees to perform services from facility to the assigned work site; in performing the duties assigned; as a result of transfer to new assigned site of work; return from assigned site of work to contractor’s facilities.
Billable travel time as defined in paragraph above shall include time as hereinafter and time at port or airfields awaiting transportation. Actual travel time will be computed on the basis of the number of quarters of a day beginning at 0600 hours spent in actual travel. Any time in travel during a quarter shall be considered travel during the entire quarter. However, travel time other than subsistence shall not be allowable in excess of eight hours a day or forty hours a week except as provided in paragraph above.

e. billable hours do not include:
* The number of hours necessary for travel by collocated contractor’s employees from their residence to the program office they support and the return to their residence.

* The number of normal work days that the contractor personnel are not permitted to work because of lack of security clearances, proper identification required under the terms of the Task Order, even though such personnel might otherwise be available for work on those days.

* Contractor personnel will not be considered available for assignment until the following information concerning such personnel is submitted in writing to the issuing Contracting Officer's designated representative.

Name

Social Security
Passport Number (when required)
Security Clearance (date of the clearance and issuing agency)
Visa Number (when required)

The contractor will not submit the above information until the valid Task Order is issued.

* The number of normal days the contractor personnel are not available for work;
* The number of normal work days that the services were not performed or were not available because of security reasons, voluntary resignation, death, incapacity, illness, vacation or removal by the contractor or contractor's personnel.

(G.6) TRAVEL

The Government will reimburse the cost of travel required in conjunction with performance of orders issued under this BPA. Travel costs will be reimbursed in accordance with the Joint Travel Regulations (JTR). Reimbursement for travel is limited to that required in the performance of the order. The airline and rental car portion of this travel will be handled by the contractor's travel office. Contractor per diem and reimbursement for travel expenses will be billed to the government as other direct charges (ODCs). Travel costs subject to reimbursement are limited to travel occurring at the direction of the COR/Contracting Officer or performed in conjunction with a specific requirement for a trip authorized in the order. Details of estimated travel will be available when individual task orders are written. Costs arising from the relocation of BPA holder personnel from other geographic areas for the purpose of staffing an order, are not subject to reimbursement.

(G.7) COLLOCATION

The Government reserves the right to require the BPA holder at any given time to collocate a portion of its support services workforce with the Program Office or Staff supported. The Government will make available facilities, in accordance with the "Government Facilities" provision, for any such collocation. Collocation can only be directed by the Contracting Officer and must be in writing. The Government estimates that the percentage of the total labor hours (for orders under this BPA in effect at any one time during the period of performance for orders under this BPA) collocated will be approximately 50%. However, the Government reserves the right to require that all BPA holder personnel performing services on orders be located in BPA holder facilities. In the event that the Government requires collocation of more or less than 50% of contract employees performing on orders, this will not provide the basis for any equitable adjustment to the price, terms and/or conditions of the contract.

(G.8) FINANCIAL CONFLICT OF INTEREST

a. Except as provided for under subparagraph (d) hereof, the BPA holder shall not assign, nor allow, any employee for whom it receives payment under this BPA to perform any task under this BPA concerning any program, BPA holder, contract, or other matter if that employee, or that employee's spouse or dependent child, has a financial interest or affiliation in any non-Federal entity that would be impacted by performance of the task. For each employee who performs a task in violation of this prohibition, the price of the CLIN under which the BPA holder receives payment for that performance shall be reduced by the product of the hourly rate prescribed for that employee in the BPA schedule (including wages, indirect costs, general and administrative expenses and profit), multiplied by the number of hours in which that employee was performing the task in violation of this prohibition, and the BPA holder shall forfeit any right to receive said payment. Costs allocable to the expended hours for which payment has been forfeited shall be accounted for as unallowable costs and shall not be charged to this or any other Government contract.

b. "Financial interest" means any continuing financial interest (such as through a pension or retirement plan, shared income, continuing termination payments, or other arrangements as a result of any current or prior employment or business or professional association) or any financial interest through legal or beneficial ownership of stock, stock options, bonds, securities, or other arrangements including trusts. "Affiliation" means a relationship as an employee, officer, owner, director, member, trustee, partner, advisor, agent, representative, or consultant; or a person having any understanding, plans or pending contacts regarding such a relationship in the future. (This includes sending resumes, making telephone inquiries or any act that reasonably could be construed as an indication of interest in a future affiliation).

c. The BPA holder shall obtain from each employee substantively involved in a given task, certification that the employee, or the employee's spouse or dependent child, does not have any direct financial interest or affiliation, as defined in subparagraph (b) hereof, which is directly related to the work he or she will be performing on any task awarded under this BPA.

d. Whenever the BPA holder wishes to assign an employee to perform a task under this BPA when that employee, or that employee's spouse or dependent child, has a financial interest or affiliation as defined under subparagraph (b) hereof in a non-Federal entity that would be impacted by performance of the task, the BPA holder shall, before making the assignment, obtain a written waiver from the task order Contracting Officer, by submitting to the Contracting Officer a written request for waiver together with all relevant supporting information. The Contracting Officer shall have the sole discretion to

grant or deny the waiver in whole or in part. The Contracting Officer's determination shall be discretionary, final and conclusive and not subject to appeal under the Disputes clause or the Contract Disputes Act of 1978.

e. The BPA holder shall provide the Certificate of Non-Conflict of Interest to the task order COR.

(G.9) NON-DISCLOSURE OF SENSITIVE INFORMATION

Contractor personnel may be required to sign non-disclosure statements to preclude disclosure of nonpublic information including but not limited to procurement, source selection and security sensitive information. The BPA holder shall provide the Certificate of Non-Disclosure to the task order COR.

(G.10) NONPERSONAL SERVICES

a. In performance of this BPA, the BPA holder will provide non-personal support-services as indicated in the Task Order either at the government's facilities and/or at the contractor's facilities. These services are needed to accomplish tasks that cannot be accomplished by Government personnel because of time constraints and/or expertise, which is not available. The types of required services are: Project Management, System Engineering, Software Engineering, Testing, Training, Documentation Support. Administration, Quality Assurance, Integrated Logistics Support, Acquisition Management, and Information Technology support to the PM. This will be based upon the order's statement of work for the specific Task. Orders will be formally issued to the BPA holder as opposed to individual BPA holder employees.

b. The Government will neither supervise BPA holder employees nor control the method by which the BPA holder performs the required tasks. Under no circumstances shall the Government assign tasks to, or prepare work schedules for, individual BPA holder employees. It shall be the responsibility of the BPA holder to manage its employees and to guard against any actions that are of the nature of personal services, or give the perception of personal services. If the BPA holder feels that any actions constitute, or are perceived to constitute, personal services, it shall be the BPA holder's further responsibility to notify the Ordering Contracting Officer immediately.

c. These services shall not be used to perform work of a policy/decision making or management nature. All decisions relative to programs supported by the BPA holders will be the sole responsibility of the Government. Support services will not be ordered to circumvent personnel ceilings, pay limitations, or competitive employment procedures.

(G.11) BPA HOLDER IDENTIFICATION

BPA holder personnel will be required to wear company identification badges so as to distinguish themselves from Army employees. When conversing with Government personnel during business meetings and over the telephone, support BPA holder personnel shall identify themselves as such to avoid situations arising where sensitive topics might be better discussed solely between Government employees. Where practicable, support BPA holder occupying collocated space with their Government program customer should identify their work space area with their name and company affiliation. If collocated and granted email privileges, BPA holder personnel shall identify themselves as such in all emails issued.

(G.12) CONTRACT MANYEAR EQUIVALENT LIMITATIONS

Man-hours incurred by each support BPA holder employee working under an order are limited each year to the Contract Man-year Equivalent (CME) of 1764 hours, unless “mission essential” increases (at straight time) are authorized by the Contracting Officer.

(G.13) TERM OF BPA

a. This BPA expires on 19 August 2004 or such later ending date as determined by the exercise of any extension of any “General Schedule extension” option by the GSA and exercise of the option to extend the term of the BPA by the PCO. The BPA holder is required to immediately notify, in writing, the Contracting Officer if at any time prior to 19 August 2004 the GSA Contract, upon which this BPA is based, is no longer in force. This BPA is not a contract. If the BPA holder fails to perform in a manner satisfactory to the Contracting Officer, this BPA may be canceled with 30 days written notice to the BPA holder by the Contracting Officer.

b. The Government may extend the term of this BPA by written notice to the Contractor at any time prior to the expiration of the BPA, provided, that the Government shall give the Contractor a preliminary written notice of its intent to extend at least 10 working days before the BPA expires. The preliminary notice does not commit the Government to an extension.

c. If the Government exercises this option, the extended BPA shall be considered to include this option provision.

d. The total duration of this BPA, including the exercise of any options under this clause, shall not exceed the period of the governing GSA FSS Contract.

e. It is expected that the period of performance for individual task orders will generally be up to two years. Depending on funding restrictions and the requirements of the users, the period may consist of a single performance period or a base and an option period. The Government may extend the term of a delivery order by the exercise of an option. The option may be exercised at any time during performance of the order, provided that the Government furnishes written notice to the contractor within five (5) working days of the expiration of the order.

f. The GSA Schedule contract permits extended performance of an order beyond the period of the GSA contract in order to complete the order.

(G.14) VOLUME

The Government estimates, but does not guarantee, that the potential volume of services ordered from all BPA holders will be 600 labor years over an approximate five year period. If the actual amount ordered is less than the estimate, the Government is not liable for the price difference between the quantity discount based on the estimate and the quantity discount for the amount ordered. The Government is under no obligation to the BPA holder to purchase any specified quantity of services.

(G.15) OBLIGATION OF FUNDS

This BPA does not obligate any funds. The Government is obligated only to the extent of authorized orders actually made under the BPA by the Contracting Officer.

(G.16) AUTHORIZED ORDERING OFFICIALS AND USERS

Government Contracting Officers at CECOM Acquisition Center – Washington are the only officials authorized to place orders under this BPA.

Any organization within the US Army may be a user of this BPA and is permitted to request that task orders be placed in support of their organization.

(G.17) REQUEST FOR TASK ORDER PLAN

a. The Government anticipates that competitive quote procedures will be used for Task Orders. Upon identification of the need for a Task Order, the Government will issue a Request for Quote (RFQ)to the contractor(s). The basis of issuing the order will be identified in the RFQ. The Contracting Officer has broad discretion in selection and will use such criteria as the ability of selectee to provide the level of quality required, previous performance under earlier, similar, or related taskings; and price.

b. Each Request for Quote for an order will contain a Statement of Work (SOW), or other performance-based work statement, describing the program to be supported, a description of the task, evaluation criteria, the deliverables if any, an order start date and completion date. Within fifteen (15) working days the BPA holder(s) solicited will respond to the SOW with a Performance Work Statement (PWS), technical solution, and an identification and explanation of the BPA Holders corporate capabilities (including tools and data bases developed by BPA Holder and relevant to the task(s)), past experience with similar tasks, labor mix and hours, other direct costs with applicable indirect costs and a proposed ceiling price for the order. Generally, the following supporting information shall be provided for orders to be issued on a Time and Materials basis:

1. Labor allocation matrix, indicating the total hours attributed to each applicable labor category, and the names, companies and number of hours of each individual assigned to the labor category for the Task Order. One page resumes for each assigned individual shall be provided upon Government request.

2. Bill of materials, indicating the source, quantity, unit cost and total cost for all required materials. The nature and cost associated with each ODC shall be described and shall be provided to the Government to determine if it should be purchased separately or if it can be purchased under another GSA FSS.

c. The PWS and labor mix will be incorporated into any resulting order. The proposed technical solution may also be incorporated in the order. The Task Leader will be assigned by the BPA holder on a per site basis.

(G.18) ORDERS

a. Order Management Requirements: Delivery of services shall be implemented only if directed by an order. b. Order Accounting: The BPA holder's order accounting system shall provide traceability of all labor hour and cost reimbursable elements (e.g. travel, training, other authorized direct costs) ordered by each program's funding citation's Accounting Classification Reference Number (i.e. "ACRN" assigned at the "InfoSubCLIN" level in Section B), if required by the ordering office. Otherwise, traceability shall be at the CLIN level, to include segregation by Government appropriation (i.e. "color of money"), set forth in the order. Under no circumstances will any invoice exceed the period of performance, hours or "ceiling" dollar amount for any funded order. The BPA holder will separately track and invoice US Government and FMS charges. All invoices submitted for payment shall clearly identify:

1. Government order number.
2. period of performance
3. amount due by CLIN

4. labor hours provided per labor category

(G.19) MANAGEMENT REPORTS

a. The contractor shall submit a management reports in accordance with CDRLs identified in individual task orders. The BPA holder shall prepare and maintain a Monthly Funds Tracking Report for each order. The BPA holder shall submit reports to the Government if requested. The BPA holder will submit reports to the ordering office Contract Manager and the Task Order COR on a regular basis as defined by each order. Reporting shall include schedule by task, labor hour expenditures by labor category by task and cost reimbursable elements. These reports will be submitted electronically.

(G.20) PERFORMANCE

The following terms and conditions are applicable:

a. All services will be initiated within 30 calendar days following receipt of a valid order, unless otherwise specified in the order.

b. The BPA holder shall be familiar with DOD, Army and subordinate command acquisition regulations, directives and instructions. If a particular document is required in a specific order it will be cited within the order's PWS.

c. The BPA holder shall not provide technical direction to any acquisition contractor or government personnel at any time. Neither shall the Government directly supervise BPA holder employees. Day to day supervision of BPA holder personnel should be conducted by the BPA holder Task Leader wherever the BPA holder personnel are located. All direction of the BPA holder shall be through the Contracting Officer (PCO). Technical "tasking" assignments for the BPA holder will be transmitted by the Contracting Officer to the BPA holder's Program Manager.

d. Marketing Limitations: The BPA holder shall limit marketing/business opportunity telephone contact and personal visits with the Government personnel in the offices of authorized users to a reasonable level. Any marketing determined excessive by the Contracting Officer will be sufficient grounds for cancellation of this BPA.

(G.21) INVOICES

a. Inspection and acceptance shall be accomplished as follows: The COR in the Program Office will be the point of final inspection and acceptance by the Government for all services and items furnished under any resulting order unless otherwise specified in the individual Task Order. The BPA holder will submit each invoice, including all back-up data, for review and signature. When

the COR receives an accurate and complete invoice, he/she will forward a signed copy to the Defense Finance Accounting Service (DFAS) within five (5) working days. If the invoice is incomplete or inaccurate the COR will return the unsigned invoice to the BPA holder Program Manager for correction. After correction, the invoice will then be returned to the COR who will forward a signed copy to DFAS for payment. Final payment for each order will be accomplished by final DD Form 250.

b. The requirements of a proper invoice are as specified in the BPA holder's Federal Supply Schedule contract.

c. An itemized invoice shall be submitted to the order's Government COR at least monthly or upon expiration of this BPA, whichever occurs first, for all services and items delivered during a billing period and for which payment has not been received. These invoices shall not be supported by copies of delivery tickets. "Approved-for-payment" Invoices will be submitted to the payment address specified on each individual order issued under this BPA.

d. Upon completion of the Task Order, the BPA holder shall commence procedures for the closing out of the order.

(G.22) SECURITY

If a DD 254, Department of Defense Contract Security Classification Specification is required, one will be attached to the Task Order addressing particular security requirements.

(G.23) YEAR 2000 (Y2K) COMPLIANCE

On task orders that require information technology that processes date related information, the BPA holder shall comply with the following:

Y2K Compliance

The contractor shall ensure products provided under this BPA, to include hardware, software, firmware, and middleware, are Year 2000 compliant. "Year 2000 Compliant" as used in this clause or elsewhere in this BPA, means, with respect to information technology, that the information technology, accurately processes date/time data (including, but not limited to, calculating, comparing, and sequencing) from, into, and between the twentieth and twenty-first centuries, and the years 1999 and 2000 and leap year calculations, to the extent that other information technology, used in combination with the information technology being acquired, properly exchanges date/time data with it.

(G.24) Year 2000 Warranty (Services)

On task orders issued under this BPA for information technology services:

(a) Definitions. "Acceptance," as used in this clause, means the act of an authorized representative of the Government by which the Government assumes for itself, or as an agent of another, ownership of existing and identified supplies, or approves specific services, as partial or complete performance of the contract.

"Correction," as used in this clause, means the elimination of a defect.

"Defect," as used in this clause, means that the items or services furnished by the Contractor under the contract contain information technology that does not accurately process date/time data (including, but not limited to, calculating comparing, and sequencing) from, into, and between the twentieth and twenty-first centuries, and the years 1999 and 2000 and leap year calculations, to the extent that other information technology, used in combination with the information technology being acquired, properly exchanges date/time data with it.

(b) Notwithstanding inspection and acceptance by the Government or any provision concerning the conclusiveness thereof, the Contractor warrants that all services performed under this contract will, at the time of acceptance, be free from defects. The Contracting Officer shall give written notice of any defect to the Contractor on or before 31 December 2001. This notice shall state either (1) that the Contractor shall correct or repair any defective or nonconforming services, or (2) that the Government does not require correction or re-performance.

(c) If the Contractor is required to correct or re-perform, it shall be at no cost to the Government, and any services directed or re-performed by the Contractor shall be subject to this clause to the same extent as work initially performed. If the contractor fails or refuses to correct or re-perform, the Contracting Officer may, by contract or otherwise, correct or replace with similar services and charge to the Contractor the cost occasioned to the Government thereby, or make an equitable adjustment in the contract price.

(d) If the Government does not require correction or re-performance, the Contracting Officer shall make an equitable adjustment in the price of the applicable Task Order.

(G.25) Year 2000 Warranty (Commercial Items)

(a) The Contractor warrants that any Information Technology including, but not limited to, hardware, software, firmware, and middleware delivered under this BPA shall accurately process date/time data (including, but not limited to,

calculating, comparing, and sequencing) from, into, and between the twentieth and twenty-first centuries, and the years 1999 and 2000 and leap year calculations, to the extent that other information technology, used in combination with the information technology being acquired, properly exchanges date/time data with it.

(b) All warranties in the foregoing paragraph shall run for a period of sixteen (16) months from 1 January 2000. Should a warranted item fail to meet the requirements set out in the foregoing paragraph, the contractor agrees to correct or replace the item at no cost to the Government. The parties agree that this correction or replacement shall not act as a limitation of remedies and that the Government may seek such additional remedies as may be available through this BPA or at law or equity.

(c) This clause takes precedence over any other warranty or disclaimer thereof of this BPA. It is in addition to the rights and remedies set forth in any other warranty for this item.

INFORMATION TECHNOLOGY SCHEDULE PRICELIST
GENERAL PURPOSE COMMERCIAL INFORMATION TECHNOLOGY
EQUIPMENT, SOFTWARE AND SERVICES

Special Item No. 132-51 Information Technology Professional Services

Note: All non-professional labor categories must be incidental to and used solely to support hardware, software and/or professional services, and cannot be purchased separately.

SIN 132-51 - INFORMATION TECHNOLOGY (IT) PROFESSIONAL SERVICES

FPDS Code D301	IT Facility Operation and Maintenance
FPDS Code D302	IT Systems Development Services
FPDS Code D306	IT Systems Analysis Services
FPDS Code D307	Automated Information Systems Design and Integration Services
FPDS Code D308	Programming Services
FPDS Code D310	IT Backup and Security Services
FPDS Code D311	IT Data Conversion Services
FPDS Code D313	Computer Aided Design/Computer Aided Manufacturing (CAD/CAM) Services
FPDS Code D316	IT Network Management Services
FPDS Code D317	Automated News Services, Data Services, or Other Information Services
FPDS Code D399	Other Information Technology Services, Not Elsewhere Classified

Radian Inc.
5845 Richmond Highway, Suite 725, Alexandria, VA 22303
800-595-5593, 703-329-8510 Fax
www.radianinc.com

Contract Number: GS-35F-0695J

Period Covered by Contract: 8-20-99 through 8-19-04

DESCRIPTION OF IT SERVICES

RADIAN LABOR CATEGORY DESCRIPTIONS AND RATES
(Note: Hourly Rates Fully Loaded, Include GSA Industrial Funding Fee and Apply to Radian-site Work)

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1. Commercial Labor Category: Reserved

2.a Commercial Labor Category: Senior Program Manager

Minimum/General Experience: This position requires a minimum of fourteen (14) years of progressive experience which includes: managing, directing, and implementing information technology projects, demonstrated ability to provide guidance and direction for projects, proven expertise in the management and control of funds and resources, and demonstrated capability in managing multi-task contracts. Must possess extensive knowledge of engineering and management concepts, procedures and practices. General experience includes increasing responsibilities in information systems design and management; management of a diverse group of functional activities, subordinate groups of technical and administrative personnel; and management and control of funds and resources, and demonstrated capability in managing complex, multi-task commercial and government contracts.

Functional Responsibility: Serves as the contractor's single contract manager, and shall be the contractor's authorized technical interface with the Government Contracting Officer (CO), Contracting Officer's Representatives (CORs), government management personnel, and customer agency representatives. Responsible for providing technical and managerial leadership of a major program in a specialized area of technology and for overall contract performance. Basic responsibilities include:

- Obtaining proper resources within and across organizational boundaries.
- Managing and tracking program, project or task finances.
- Developing subordinate program, project or task personnel.
- Providing appropriate technical and administrative management oversight to engineers, scientists, analysts, logisticians, technicians, support personnel, etc., engaged in one or more fields of expertise.
- Scheduling and allocating work, providing advice and guidance, and resolving problems to meet technical performance and financial objectives.
- Establishing performance and technical standards.

- Reviewing and evaluating work of staff and preparing periodic performance reports.
- Ensures the product quality and timeliness of efforts.

Minimum Education: The qualified individual shall have a Bachelor's degree in computer science, information systems, engineering, business, or other related scientific or technical discipline. The minimum/general experience may be reduced by two (2) years for a Master's degree in a technical discipline. An additional two (2) years of experience over and above the minimum/general requirement can be substituted with an Associates degree. An additional four (4) years experience can be substituted over and above the minimum/general requirement without a degree. This additional experience must be gained from a combination of education, training, or certification (technical diploma) that provides the requisite knowledge, skills, and abilities. Individuals shall have acquired the education and experience in one or more of the following areas of specialization:

Electronics	Logistics Management	Marine Engineering
Bridging Systems	Military Vehicle Systems	HVAC Systems
Rapid Prototyping	Signature Management	Systems Integration
Power Generation	Asset Protection	Modeling/Simulation

2.b Commercial Labor Category: Program Manager

Minimum/General Experience: This position requires a minimum of twelve (12) years of progressive experience which includes: managing, directing, and implementing information technology projects, demonstrated ability to provide guidance and direction for projects, proven expertise in the management and control of funds and resources, and demonstrated capability in managing multi-task contracts. Must possess extensive knowledge of engineering and management concepts, procedures and practices. General experience includes increasing responsibilities in information systems design and management; management of a diverse group of functional activities, subordinate groups of technical and administrative personnel; and management and control of funds and resources, and demonstrated capability in managing complex, multi-task commercial and government contracts.

Functional Responsibility: Serves as the contractor's single contract manager, and shall be the contractor's authorized technical interface with the Government Contracting Officer (CO), Contracting Officer's Representatives (CORs), government management personnel, and customer agency representatives. Responsible for providing technical and managerial leadership of a major program in a specialized area of technology and for overall contract performance. Basic responsibilities include:

- Ensuring appropriate staffing required for major programs, projects or tasks.
- Managing and tracking program, project or task finances.

- Developing subordinate program, project or task personnel.
- Providing appropriate technical and administrative management oversight to engineers, scientists, analysts, logisticians, technicians, support personnel, etc., engaged in one or more fields of expertise.
- Scheduling and allocating work, providing advice and guidance, and resolving problems to meet technical performance and financial objectives.
- Developing new and refining existing process to enhance quality and productivity.
- Reviewing and evaluating work of staff and preparing periodic performance reports.
- Ensures the product quality and timeliness of efforts.

Minimum Education: The qualified individual shall have a Bachelor's degree in computer science, information systems, engineering, business, or other related scientific or technical discipline. The minimum/general experience may be reduced by two (2) years for a Master's degree in a technical discipline. An additional two (2) years of experience over and above the minimum/general requirement can be substituted with an Associates degree. An additional four years experience can be substituted over and above the minimum/general requirement without a degree. This additional experience must be gained from a combination of education, training, or certification (technical diploma) that provides the requisite knowledge, skills, and abilities. Individuals shall have acquired the education and experience in one or more of the following areas of specialization:

Electronics	Logistics Management	Marine Engineering
Bridging Systems	Military Vehicle Systems	HVAC Systems
Rapid Prototyping	Signature Management	Systems Integration
Power Generation	Asset Protection	Modeling/Simulation

2.c Commercial Labor Category: Project Manager

Minimum/General Experience: This position requires a minimum of ten (10) years of progressive experience which includes: managing, directing, and implementing information technology projects, demonstrated ability to provide technical direction for projects, proven expertise in the management and control of funds and resources, and demonstrated capability in managing contracts. Must possess extensive knowledge of engineering and management concepts, procedures and practices. General experience includes increasing responsibilities in information systems design and management; management of a diverse group of functional activities, subordinate groups of technical and administrative personnel; and management and control of funds and resources, and demonstrated capability in managing complex, multi-task commercial and government contracts.

Functional Responsibility: Serves as a technical manager, and the contractor's authorized technical interface with the Contracting Officer's Representatives (CORs),

government management personnel, and customer agency representatives. Responsible for providing technical and managerial leadership of a major program in a specialized area of technology and for overall task performance. Basic responsibilities include:

- Ensuring appropriate staffing required for major programs, projects or tasks.
- Managing and tracking program, project or task finances.
- Developing subordinate program, project or task personnel.
- Leading a program, project or task by outlining, assigning and coordinating work.
- Scheduling and allocating work, providing advice and guidance, and resolving problems to meet technical performance and financial objectives.
- Developing new and refining existing process to enhance quality and productivity.
- Reviewing and evaluating work of staff and preparing periodic performance reports.
- Ensures the product quality and timeliness of efforts.

Minimum Education: The qualified individual shall have a Bachelor's degree in computer science, information systems, engineering, business, or other related scientific or technical discipline. The minimum/general experience may be reduced by two (2) years for a Master's degree in a technical discipline. An additional two (2) years of experience over and above the minimum/general requirement can be substituted with an Associates degree. An additional four years experience can be substituted over and above the minimum/general requirement without a degree. This additional experience must be gained from a combination of education, training, or certification (technical diploma) that provides the requisite knowledge, skills, and abilities. Individuals shall have acquired the education and experience in one or more of the following areas of specialization:

Electronics	Logistics Management	Marine Engineering
Bridging Systems	Military Vehicle Systems	HVAC Systems
Rapid Prototyping	Signature Management	Systems Integration
Power Generation	Asset Protection	Modeling/Simulation

3.a Commercial Labor Category: Principal Engineer

Minimum/General Experience: This position requires a minimum of twelve (12) years experience, of which at least eight (8) years must be specialized. Specialized experience includes: establishment of system requirements; performance of systems engineering, trade studies, engineering analyses, and system evaluations; development of system designs and technical specifications; and testing and evaluating systems for acceptance. Additional experience includes the use of automated design tools (such as Pro/ENGINEER, SolidWorks, etc.) to create and model system designs and processes, development of assembly/subassembly models, performance of simulations, and development of bill of materials (BOM) for system designs, and performance of

hardware/software assessments. General experience includes development of system design databases; and demonstrated knowledge of engineering and information systems throughout all life cycle phases. Must be capable of directing efforts of engineering team and focusing team efforts to meet system performance requirements.

Functional Responsibility: Applies engineering skills in the analysis, specification, development, integration, production, testing, and acquisition of systems, subsystems, or components. Evaluates and recommends commercial-off-the-shelf (COTS) applications, products, and methodologies that can provide interoperable, portable, and scaleable technology solutions. Analyzes reusable software or hardware components to determine if the components can be integrated into interoperable systems. Applies reverse engineering and reengineering disciplines to develop production planning and strategic migration documents. Ensures subsystem interoperability, system compatibility and overall compliance with open systems architecture standards. Analyzes system requirements and directs efforts to develop alternatives to satisfy those requirements. Provides technical leadership for developing solutions as part of engineering studies. Supports process improvement efforts by providing specific, high-level technical expertise. Performs evaluation of alternatives and assessment of risks and costs. Develops and refines new engineering techniques and processes to enhance quality and productivity. Establishes performance and technical standards as well as provides project oversight and approves project and testing specifications. Can provide management oversight and daily supervision of team personnel and/or lead/coordinate complex task/project teams.

Minimum Education: The qualified individual shall have a Bachelor's degree in computer science, information systems, engineering, mathematics, physics or other related analytical, scientific or technical discipline. The minimum/general experience may be reduced by two (2) years for a Master's degree in a technical discipline. An additional two (2) years of experience over and above the minimum/general requirement can be substituted with an Associates degree. An additional four (4) years experience can be substituted over and above the minimum/general requirement without a degree. This additional experience must be gained from a combination of education, training, or certification (technical diploma) that provides the requisite knowledge, skills, and abilities. Individuals shall have acquired the education and experience in one or more of the following areas of specialization:

Electronics	Logistics Management	Marine Engineering
Bridging Systems	Military Vehicle Systems	HVAC Systems
Rapid Prototyping	Signature Management	Systems Integration
Power Generation	Asset Protection	Modeling/Simulation

3.b Commercial Labor Category: Senior Engineer

Minimum/General Experience: This position requires a minimum of twelve (12) years experience, of which at least eight (8) years must be specialized. Specialized experience includes: establishment of system requirements; performance of systems engineering, trade studies, engineering analyses, and system evaluations; development of system designs and technical specifications; and testing and evaluating systems for acceptance. Additional experience includes the use of automated design tools (such as Pro/ENGINEER, SolidWorks, etc.) to create and model system designs and processes, development of assembly/subassembly models, performance of simulations, and development of bill of materials (BOM) for system designs, and performance of hardware/software assessments. General experience includes skills in interfacing software with imbedded and non-imbedded hardware systems, application of computer-aided software engineering (CASE) tools, and software system development. Demonstrated ability to communicate orally and in writing. Supervisory experience in managing and providing direction to engineers, programmers, and analysts.

Functional Responsibility: Applies engineering skills in the analysis, specification, development, integration, production, testing, and acquisition of systems, subsystems, or components. Evaluates and recommends commercial-off-the-shelf (COTS) applications, products, and methodologies that can provide interoperable, portable, and scaleable technology solutions. Applies reverse engineering and reengineering disciplines to develop production planning and strategic migration documents. Ensures subsystem interoperability, system compatibility and overall compliance with open systems architecture standards. Conducts or supervises the preparation of electrical schematics, mechanical layouts, and creation of wiring diagrams; development of design solutions, and establishment of relevant procurement and design documentation. Establishes performance and technical standards and develop appropriate tests to assess, debug and validate system performance. Performs evaluation of alternatives and assessment of risks and costs. Documents the results of complex analysis and design tasks. May act as team lead and plans project/task coordination, management and engineering. Provides comprehensive definition of all aspects of system development from analysis of mission needs to verification of system performance. Can provide management oversight and daily supervision of team personnel and/or lead/coordinate complex task/project teams.

Minimum Education: The qualified individual shall have a Bachelor's degree in computer science, information systems, engineering, mathematics, physics or other related analytical, scientific or technical discipline. The minimum/general experience may be reduced by two (2) years for a Master's degree in a technical discipline. An additional two (2) years of experience over and above the minimum/general requirement can be substituted with an Associates degree. An additional four (4) years experience can be substituted over and above the minimum/general requirement without a degree. This additional experience must be gained from a combination of education, training, or certification (technical diploma) that provides the requisite knowledge, skills, and abilities.

Individuals shall have acquired the education and experience in one or more of the following areas of specialization:

Electronics	Logistics Management	Marine Engineering
Bridging Systems	Military Vehicle Systems	HVAC Systems
Rapid Prototyping	Signature Management	Systems Integration
Power Generation	Asset Protection	Modeling/Simulation

3.c Commercial Labor Category: Engineer

Minimum/General Experience: This position requires a minimum of four (4) years experience, of which at least two (2) years must be specialized. Specialized experience includes: establishment of system requirements; performance of systems engineering, trade studies, engineering analyses, and system evaluations; development of system designs and technical specifications; and testing and evaluating systems for acceptance. Additional experience includes the use of automated design tools (such as Pro/ENGINEER, SolidWorks, etc.) to create and model system designs and processes, development of assembly/subassembly models, performance of simulations, and development of bill of materials (BOM) for system designs, and performance of hardware/software assessments. General experience includes strong oral and written communication skills and possesses a solid knowledge of principles and practices involved in research, prototyping, engineering development, testing, evaluation, and production. Must possess strong organizational skills and strong interpersonal skills to understand organizational/customer requirements. May possess supervisory experience in managing engineers, programmers, and analysts.

Functional Responsibility: Applies engineering skills in the analysis, specification, development, integration, production, testing, and acquisition of systems, subsystems, or components. Evaluates and recommends commercial-off-the-shelf (COTS) applications, products, and methodologies that can provide interoperable, portable, and scaleable technology solutions. Prepares electrical schematics, mechanical layouts, and wiring diagrams; develops design solutions, and prepares relevant procurement and design documentation. Implements performance and technical standards and conducts appropriate tests to assess, debug and validate system performance. Develops block diagrams and logic flow charts. Translates detailed design into prototype or production hardware/software. Prepares system operation/maintenance to user/operator-level documentation. Enhances software to reduce operating time or improved performance efficiency. Analyzes problems and develops system requirements and performance specifications. Creates performance measurements and conducts system assessments. Develops metadata describing hardware/software design and attribute descriptions. Assists in the management of projects including preparation/delivery of presentations. May design moderately complex systems. Prepares technical reports of work efforts. Under general supervision, performs various engineering or scientific assignments in the

fields of research and development, test and evaluation, advanced development, production and deployment. Assists in developing standards and techniques. May assist as team lead and executes project/task coordination, management and engineering.

Minimum Education: The qualified individual shall have a Bachelor's degree in computer science, information systems, engineering, mathematics, physics or other related analytical, scientific or technical discipline. The minimum/general experience may be reduced by two (2) years for a Master's degree in a technical discipline. An additional two (2) years of experience over and above the minimum/general requirement can be substituted with an Associates degree. An additional four (4) years experience can be substituted over and above the minimum/general requirement without a degree. This additional experience must be gained from a combination of education, training, or certification (technical diploma) that provides the requisite knowledge, skills, and abilities. Individuals shall have acquired the education and experience in one or more of the following areas of specialization:

Electronics	Logistics Management	Marine Engineering
Bridging Systems	Military Vehicle Systems	HVAC Systems
Rapid Prototyping	Signature Management	Systems Integration
Power Generation	Asset Protection	Modeling/Simulation

3.d Commercial Labor Category: Junior Engineer

Minimum/General Experience: Recent college graduate in engineering, mathematics, physics, computer science and/or information systems development or a relevant technical discipline. Must possess specialized training in systems engineering, trade studies, engineering analyses, and system evaluations; must be capable of development of system designs and technical specifications; and conducting testing and evaluating systems for acceptance. Must be trainable in the use of automated design tools (such as Pro/ENGINEER, SolidWorks, etc.) to create and model system designs and processes.

Functional Responsibility: Works under close supervision, developing the requirements of a system or product from concept to fielding. Prepares electrical schematics, mechanical layouts, and wiring diagrams; develops design solutions, and prepares relevant procurement and design documentation. With appropriate oversight, develops required specifications for simple to moderately complex designs. Implements performance and technical standards and when directed, conducts appropriate tests to assess, debug and validate system performance. Develops block diagrams and logic flow charts. Translates detailed design into prototype or production hardware/software. Develops computer software possessing a wide range of capabilities, for both imbedded and non-embedded systems. Provides alternatives, recommendations, and assistance to managers and more senior engineers involved in the research, development,

integration, testing, and fielding systems. Assists in the management of projects including preparation/delivery of presentations. Prepares input to technical reports of work efforts. Under close supervision, performs various engineering or scientific assignments in the fields of research and development, test and evaluation, advanced development, production and deployment. Performs routine engineering or scientific assignments under immediate supervision and follows specific instructions as to working plans and methods. Responsible for the accuracy of tests, observations, measurements and computations in the design, construction, and testing required under a project.

Minimum Education: The qualified individual shall have a Bachelor's degree in computer science, information systems, engineering, mathematics, physics or other related analytical, scientific or technical discipline. An additional two (2) years of experience over and above the minimum/general requirement can be substituted with an Associates degree. An additional four (4) years experience can be substituted over and above the minimum/general requirement without a degree. This additional experience must be gained from a combination of education, training, or certification (technical diploma) that provides the requisite knowledge, skills, and abilities. Individuals shall have acquired the education and experience in one or more of the following areas of specialization:

Electronics	Industrial Engineering	Mechanical Engineering
Aeronautics	Information Systems	Systems Integration
Structural Design	Information Technology	Software Engineering
Production Layout	Petroleum Engineering	Stereo Lithography
Civil Engineering	Electrical Engineering	Aerospace Engineering
Power Generation		

4.a Commercial Labor Category: Sr. Systems/Logistics Analyst

Minimum/General Experience: This position requires a minimum of ten (10) years experience, of which at least six (6) years must be specialized. Specialized experience includes: computer programming, systems analyses and design knowledge as well as software design and database implementation; design/development of documentation of data requirements; and the application of management principles of Integrated Logistics Support (ILS) to ensure support resources are developed, acquired, tested, and deployed as an integral part of the system acquisition process to maintain system readiness. Specific work experience involves understanding the requirements for funding, manpower, materiel, facilities, and services needed for system support and correlating those requirements with program/project plans to assure that the needed support is provided at the right time and place. Must have experience in developing or performing system and logistics management operations that involve planning, coordinating, or evaluating the logistical actions required for system support and the

integration of separate functions in planning or implementing logistics support. May have instructor platform time and experience in developing computer-based multimedia training material development. Position requires experience in directing the review and evaluation of new software/hardware and technical documentation for system enhancement, development of methodologies for evaluating complex tasks, conducting budget analysis, understanding resource limitations and the development of alternatives or "trade-offs," when necessary. Additional experience includes the development and analysis of data to determine logistic objectives and goals, identification of system support requirements, and establishment of the relationships between system support and the fielded systems. Specialized knowledge of some or all of the logistics analysis tasks:

- Trade Off studies to compare and analyze alternate support concepts.
- Level of Repair analysis to determine the optimum maintenance concept or repair versus discard decisions.
- Reliability Centered Maintenance analysis to create or verify scheduled maintenance programs.
- Operation and support cost studies to identify cost drivers and identify potential solutions.
- Logistics design review and improvement studies.
- Logistics Support Package Sustainment Package Tasks.
- Provisioning data, provisioning parts list (PPL) and pre-procurement screening.
- Engineering Data for Provisioning (EDFP)/Supplementary Provisioning Technical Documentation (SPTD).
- Design Change Notices (DCN).

Other experience includes application of program planning, funding, and management information systems; understanding organizations and functions of activities involved in providing logistical support; and coordinating/evaluating the efforts of functional specialists to identify logistics requirements and developing/adjusting plans and schedules for the actions needed to meet each requirement on time. General experience includes application of COTS software such as MS Office, data bases, and multimedia software, the review/evaluation of new hardware peripherals (Jukeboxes, scanners, printers), programmer developed software, user's standard operating procedures for new software and hardware.

Functional Responsibility: Must assure that the most effective and economical means of support are planned and applied during all stages of the life cycle. Requires the application of ILS "elements" to systems and programs: (1) maintenance plan, (2) manpower and personnel, (3) supply support, (4) support and test equipment, (5) training and training devices, (6) technical data, (7) computer resources support, (8) packaging, handling, storage, and transportation, and (9) facilities. Develops, revises, or selects training courses and provides oversight in the prepares training catalogs, courseware, multi-media, and lesson plans. Develops instructor materials, such as course outline, background material, and training aids as well as student materials, such as course

manuals, workbooks, handouts, completion certificates, and course critique forms. Conducts formal classroom courses, workshops, seminars, and computer-based training. Directs the preparation of milestone status reports and deliverables/presentations to customers. Must provide logistical interface with technical specialists (e.g., engineers, supply and maintenance specialists, software developers, technical data experts, project managers, system planners, training specialists) and with contract personnel. Provides daily supervision and direction to support staff. Reviews and approves recommendations for approval of major systems installations. Responsible for planning and evaluating system and logistic readiness. Determines trends; deficiencies in the provision of spare parts, repair manuals, test equipment, and other necessary support items; deficiencies in manpower and training; and system performance capabilities. Coordinates with logistics functional specialists, planning offices, program/project management, and representatives of such support functions as manpower, training, and budget. Develops and analyzes policies, procedures, and regulatory requirements; evaluates impact on current support operations; and plans and coordinates changes and future actions with technical and program specialists and program/project managers.

Minimum Education: The qualified individual shall have a Bachelor's degree in computer science, information systems, engineering, mathematics, physics or other related analytical, scientific or technical discipline. The minimum/general experience may be reduced by two (2) years for a Master's degree in a technical discipline. An additional two (2) years of experience over and above the minimum/general requirement can be substituted with an Associates degree. An additional four (4) years experience can be substituted over and above the minimum/general requirement without a degree. This additional experience must be gained from a combination of education, training, or certification (technical diploma) that provides the requisite knowledge, skills, and abilities. Individuals shall have acquired the education and experience in one or more of the following areas of specialization:

Systems Integration	Industrial Engineering	R&M Engineering	
Technical Manuals	Configuration Management	Provisioning	
Information Systems	Industrial Management	Data Management	
System Safety	Training/Training Systems	Engineering	Software
Engineering	Program Management	Human Factors	
Project Control	Technical Documentation		

4.b Commercial Labor Category: Systems/Logistics Analyst

Minimum/General Experience: This position requires a minimum of eight (8) years experience, of which at least four (4) years must be specialized. Specialized experience includes: computer programming, systems analyses and design knowledge as well as software design and database implementation; knowledge of program planning, funding, and management information systems, broad knowledge of organization and functions of

activities involved in providing logistical support, and coordination/evaluation of functional specialists to identify specific requirements and to develop and adjust plans and schedules for the actions needed to meet each requirement on time. Specific work experience involves understanding the requirements for funding, manpower, materiel, facilities, and services needed for system support and correlating those requirements with program/project plans to assure that the needed support is provided at the right time and place. Must have experience in developing or performing system and logistics management operations that involve planning, coordinating, or evaluating the logistical actions required for system support and the integration of separate functions in planning or implementing logistics support. May have instructor platform time and experience in developing computer-based multimedia training material development. Must have applied the management principles of Integrated Logistics Support (ILS) to ensure support resources are developed, acquired, tested, and deployed as an integral part of the system acquisition process to maintain system readiness. Position requires experience in the review and evaluation new software/hardware and technical documentation for system enhancement, development of methodologies for evaluating moderately complex tasks. Additional experience is required in understanding of system design process, developing/reviewing specifications, and preparation of maintenance and support requirements, especially during system acquisition. Specialized knowledge of some or all of the logistics analysis tasks:

- Trade Off studies to compare and analyze alternate support concepts.
- Level of Repair analysis to determine the optimum maintenance concept or repair versus discard decisions.
- Reliability Centered Maintenance analysis to create or verify scheduled maintenance programs.
- Operation and support cost studies to identify cost drivers and identify potential solutions.
- Logistics design review and improvement studies.
- Logistics Support Package Sustainment Package Tasks.
- Provisioning data, provisioning parts list (PPL) and pre-procurement screening.
- Engineering Data for Provisioning (EDFP)/Supplementary Provisioning Technical Documentation (SPTD).
- Design Change Notices (DCN).

General experience includes application of COTS software such as MS Office, data bases, and multimedia software, the review/evaluation of new hardware peripherals (Jukeboxes, scanners, printers), programmer developed software, user's standard operating procedures for new software and hardware.

Functional Responsibility: Must assure that the most effective and economical means of support are planned and applied during all stages of the life cycle. Requires the application of ILS "elements" to systems and programs: (1) maintenance plan, (2) manpower and personnel, (3) supply support, (4) support and test equipment, (5) training

and training devices, (6) technical data, (7) computer resources support, (8) packaging, handling, storage, and transportation, and (9) facilities. Responsibilities include development of logistic concepts early in the life cycle, preparation of the ILS Plan, coordination of support deficiency resolution, and analysis of support effectiveness. Investigates problems and deficiencies and develops and coordinates corrective action plans. Prepares presentations, briefings, reports, analyses, and recommendations that assist in the formulation of decisions regarding long- and short-range logistics program planning and execution. Prepares training material to fit user requirements for all relevant applications. Makes recommendations, if needed, for approval of major systems installations. Compiles and analyzes data that describes such factors as the availability and state of system support process, system operation and maintenance personnel, training related to support systems, long- and short-range planning for system support, and responsiveness of numerous program and logistics functions in meeting support requirements. Can provide daily supervision and technical direction to staff. Prepares milestone status reports and deliverables/presentations to customers. Coordinates with appropriate levels to ensure problem solution and user satisfaction.

Minimum Education: The qualified individual shall have a Bachelor's degree in computer science, information systems, engineering, mathematics, physics or other related analytical, scientific or technical discipline. The minimum/general experience may be reduced by two (2) years for a Master's degree in a technical discipline. An additional two (2) years of experience over and above the minimum/general requirement can be substituted with an Associates degree. An additional four (4) years experience can be substituted over and above the minimum/general requirement without a degree. This additional experience must be gained from a combination of education, training, or certification (technical diploma) that provides the requisite knowledge, skills, and abilities. Individuals shall have acquired the education and experience in one or more of the following areas of specialization:

Systems Integration	Industrial Engineering	R&M Engineering	
Technical Manuals	Configuration Management	Provisioning	
Information Systems	Industrial Management	Data Management	
System Safety	Training/Training Systems	Engineering	Software
Engineering	Program Management	Human Factors	
Project Control	Technical Documentation		

4.c Commercial Labor Category:
Junior Systems/Logistics Analyst

Minimum/General Experience: This position requires a minimum of four (4) years experience, of which at least two (2) years must be specialized. Specialized experience includes: computer programming, systems analyses and design knowledge as well as software design and database implementation; design/development of documentation of

data requirements; and the application of management principles of Integrated Logistics Support (ILS) to ensure support resources are developed, acquired, tested, and deployed as an integral part of the system acquisition process to maintain system readiness. Position requires the ability to review and evaluate new software and hardware, and provide written technical documentation for system enhancement. Additional experience includes knowledge of some of the logistics analysis tasks:

- Trade Off studies to compare and analyze alternate support concepts.
- Level of Repair analysis to determine the optimum maintenance concept or repair versus discard decisions.
- Reliability Centered Maintenance analysis to create or verify scheduled maintenance programs.
- Operation and support cost studies to identify cost drivers and identify potential solutions.
- Logistics design review and improvement studies.
- Logistics Support Package Sustainment Package Tasks.
- Provisioning data, provisioning parts list (PPL) and pre-procurement screening.
- Engineering Data for Provisioning (EDFP)/Supplementary Provisioning Technical Documentation (SPTD).
- Design Change Notices (DCN).

Requires at least a practical knowledge of systems design, a familiarity with specifications, and an understanding of maintenance and support requirements, especially during system acquisition. General experience includes analysis of data to validate logistic objectives and goals, the identification of support requirements, and understand the relationship between system support and the fielded system. Must possess experience in the application of COTS software such as MS Office, data bases, and multimedia software

Functional Responsibility: Assures that the most effective and economical means of support are planned and applied during all stages of the life cycle. Requires the application of ILS "elements" to systems and programs: (1) maintenance plan, (2) manpower and personnel, (3) supply support, (4) support and test equipment, (5) training and training devices, (6) technical data, (7) computer resources support, (8) packaging, handling, storage, and transportation, and (9) facilities. Responsibilities include assisting in the development of logistic concepts early in the life cycle, preparing input to the ILS Plan, resolving support deficiencies as directed, and conducting analysis of support effectiveness. Prepares system documentation and technical manuals. Assists in the development of training material to fit user requirements for all relevant applications. Develops lesson plans, hand-outs, cheat sheets and functional hands-on exercises of newly required or developed software and hardware that will meet the users' specific requirements. Assists in the preparation of milestone status reports and deliverables/presentations to customers.

Minimum Education: The qualified individual shall have a Bachelor's degree in computer science, information systems, engineering, mathematics, physics or other related analytical, scientific or technical discipline. The minimum/general experience may be reduced by two (2) years for a Master's degree in a technical discipline. An additional two (2) years of experience over and above the minimum/general requirement can be substituted with an Associates degree. An additional four (4) years experience can be substituted over and above the minimum/general requirement without a degree. This additional experience must be gained from a combination of education, training, or certification (technical diploma) that provides the requisite knowledge, skills, and abilities. Individuals shall have acquired the education and experience in one or more of the following areas of specialization:

Systems Integration	Industrial Engineering	R&M Engineering	
Technical Manuals	Configuration Management	Provisioning	
Information Systems	Industrial Management	Data Management	
System Safety	Training/Training Systems	Engineering	Software
Engineering	Program Management	Human Factors	
Project Control	Technical Documentation		

5.a Commercial Labor Category:
Principal Computer Systems Analyst

Minimum/General Experience: This labor category requires a minimum ten (10) years experience which includes analysis and design of complex information systems, knowledge of data base management systems, knowledge of programming, knowledge of current storage and retrieval methods, and demonstrated ability to formulate specifications for computer programmers to use in coding, testing, and debugging of computer programs. General experience includes increasing responsibilities in assignments of a technical nature. Must be capable of conversing with technical and managerial personnel to determine applicable programs, agency plans, and other factors affecting systems design requirements. Prepares specifications, work statements and proposals. Possesses ability to work independently or under only general direction on complex application problems involving all phases of systems analysis is required.

Functional Responsibility: Leads tasks related to the development of complex computer systems. Responsible for the development and management of program plans. Supervises systems analysis, systems design, programming, and testing. Provides technical and administrative direction for personnel performing software development tasks, and reviews work products for correctness, adherence to the design concept and to user standards, and progress in accordance with schedules. Prepares status reports and presentations on task performance to customers. Provides daily supervision and direction to support staff. Prepares and delivers presentations on data

base management systems concepts. Provides daily supervision and direction to support staff.

Minimum Education: The qualified individual shall have a Bachelor's degree in computer science, information systems, engineering, business, or other related scientific or technical discipline. The minimum/general experience may be reduced by two (2) years for a Master's degree in a technical discipline. An additional two (2) years of experience over and above the minimum/general requirement can be substituted for an Associates degree or an additional four (4) years of experience can be substituted for a Bachelor's degree. Additional experience must be gained from a combination of education, training, or certification (technical diploma) that provides the requisite knowledge, skills, and abilities.

5.b Commercial Labor Category: Sr. Computer Systems Analyst

Minimum/General Experience: This labor category requires a minimum of eight (8) years' experience which includes analysis and design of business applications on complex systems for large-scale computers, database management, use of programming language, and/or BMS. Knowledge of current storage and retrieval methods, and demonstrated ability to formulate specifications for computer programmers to use in coding, testing and debugging of computer programs. General experience includes increasing responsibilities in assignments of a technical nature. Proven ability to work independently or under only general direction on complex application problems involving all phases of systems analysis is required.

Functional Responsibility: Provides technical and administrative direction for personnel performing software development tasks, including the review of work products for correctness, adherence to the design concept and to user standards, and for progress in accordance with schedules. Coordinates with appropriate levels to ensure problem solution and user satisfaction. Make recommendations, if needed, for approval of major systems installations. Prepares milestones status reports and deliveries/presentations on the system concept to colleagues, subordinates and end-user representatives. When required, provides daily supervision and direction to support staff.

Minimum Education: The qualified individual shall have a Bachelor's degree in computer science, information systems, engineering, business, or other related scientific or technical discipline. The minimum/general experience may be reduced by two (2) years for a Master's degree in a technical discipline. An additional two (2) years of experience over and above the minimum/general requirement can be substituted for an Associates degree or an additional four (4) years of experience can be substituted for a Bachelor's degree. Additional experience must be gained from a combination of education, training, or certification (technical diploma) that provides the requisite knowledge, skills, and abilities.

5.c Commercial Labor Category: Computer Systems Analyst

Minimum/General Experience: This labor category requires a minimum of six (6) years experience which includes analysis and design of business applications on complex systems for large scale computers (including three years' experience in data base management concepts, use of programming languages and/or DBMS). Knowledge of appropriate storage and retrieval methods, one year of systems analysis experience designing technical applications on computer systems and demonstrating ability to formulate specifications for computer programmers to use in coding, testing and debugging computer programs. General experience includes increasing responsibilities in information systems design and management. Must demonstrate the ability to work independently or under only general direction on requirements that are moderately complex to analyze, plan, program and implement.

Functional Responsibility: Provides technical and administrative direction for personnel performing software development tasks, including the review of work products for correctness, adherence to the design concept and to user standards, and for progress in accordance with schedules. Coordinates with appropriate levels to ensure problem solution and user satisfaction. Make recommendations, if needed, for approval of major systems installations. Prepares milestones status reports and deliveries/presentations on the system concept to colleagues, subordinates and end-user representatives. When required, provides daily supervision and direction to support staff.

Minimum Education: The qualified individual shall have a Bachelor's degree in computer science, information systems, engineering, business, or other related scientific or technical discipline. The minimum/general experience may be reduced by two (2) years for a Master's degree in a technical discipline. An additional two (2) years of experience over and above the minimum/general requirement can be substituted for an Associates degree or an additional four (4) years of experience can be substituted for a Bachelor's degree. Additional experience must be gained from a combination of education, training, or certification (technical diploma) that provides the requisite knowledge, skills, and abilities.

5.d Commercial Labor Category: Jr. Computer Systems Analyst

Minimum/General Experience: This labor category requires a minimum of two (2) years experience which includes analysis and design of business applications on complex systems for large scale computers (including experience in data base management concepts, use of programming languages and/or DBMS). Knowledge of appropriate storage and retrieval methods, systems analysis experience designing technical applications on computer systems and demonstrating ability to formulate specifications

for computer programmers to use in coding, testing and debugging computer programs. General experience includes increasing responsibilities in information systems design and management. Must demonstrate the ability to work independently or under only general direction on requirements that are moderately complex to analyze, plan, program and implement

Functional Responsibility: Analyzes and develops computer software, possessing a wide range of capabilities including numerous engineering, business and records management functions. Develops plans for automated information systems from project inception to conclusion. Analyzes user interfaces; maintains hardware and software performance tuning; analyzes workload and computer usage; maintains interfaces with outside systems; analyzes downtimes; and analyzes proposed system modifications, upgrades and new COTS. Analyzes the problem and the information to be processed. Defines the problem, and develops system requirements and program specifications, from which programmers prepare detailed flowcharts, programs and tests. Coordinates closely with programmers to ensure proper implementation of program and system specifications. Develops, in conjunction with functional users, system alternative solutions.

Minimum Education: The qualified individual shall have a Associates degree in computer science, information systems, engineering, business, or other related scientific or technical discipline. The minimum/general experience may be reduced by two (2) years for a Bachelor's degree in a technical discipline. An additional two (2) years of experience over and above the minimum/general requirement can be substituted for an Associates degree. Additional experience must be gained from a combination of education, training, or certification (technical diploma) that provides the requisite knowledge, skills, and abilities.

6.a. Commercial Labor Category: Network Manager

Minimum/General Experience: This labor category requires a minimum of six (6) years experience which includes protocol analysis, communication network system design and maintenance, and knowledge of communication protocols such as TCP/IP, X.25. X.400, X.500. Must possess knowledge of devices such as bridges, routers and gateways. The specialized experience also include supervision of operation and maintenance of communication network systems, which may be mainframe computer, minicomputer, or client/server-based computer network. General experience should include all aspects of communication networks planning, installation and support.

Functional Responsibility: Evaluates communication hardware and software, troubleshoots LAN/MAN/WAN and other network-related problems, and provides technical expertise for performance and configuration of networks. Performs general

LAN/MAN/WAN administration, and provides technical leadership in the integration and testing of complex large-scale computer-integrated networks. Schedules computer system conversions and cut-overs. Oversees network control center. Supervises maintenance of systems. Coordinates with all responsible users and sites. Supervises staff.

Minimum Education: The qualified individual shall have a Bachelor's degree in computer science, information systems, engineering, business, telecommunications or other related scientific or technical discipline. The minimum/general experience may be reduced by two (2) years for a Master's degree in a technical discipline. An additional two (2) years of experience over and above the minimum/general requirement can be substituted for an Associates degree or an additional four (4) years of experience can be substituted for a Bachelor's degree. Additional experience must be gained from a combination of education, training, or certification (technical diploma) that provides the requisite knowledge, skills, and abilities.

6.b Commercial Labor Category: Network Engineer

Minimum/General Experience: This labor category requires a minimum of four (4) years experience in one of the following: communications software, communications hardware or network specialty. General experience includes all aspects of communication networks. Communications software specialized experience includes: developing, testing, installing and operating network and computer (host) communications software (e.g., access method and protocol software, application interfaces, transaction processors and emulators); and using and implementing communications standards. Communications hardware specialized experience includes: installing, testing and operating network and computer (host) communications equipment (e.g., switches, modems, controllers, terminals and multiplexers); using and implementing communications hardware and electrical standards; using communications hardware test and monitoring equipment; and analyzing the results. Network specialty specialized experience includes: designing, testing, installing, implementing and maintaining computer networks; using and implementing network standards; identifying and solving problems, restart/recovery, additions, deletions and modifications of terminals, hosts, etc.; optimization of network costs; and performance and implementing accounting and charge-back systems. Must demonstrate the ability to work independently or under only general direction.

Functional Responsibility: Analyzes network characteristics (e.g., traffic, connect time, transmission speeds, packet sizes and throughput) and recommends procurement, removals and modifications to network components. Designs and optimizes network topologies and site configurations. Plans installations, transitions and cutover of network components and capabilities. Coordinates requirements with users and supplies.

Minimum Education: The qualified individual shall have a Bachelor's degree in computer science, information systems, engineering, business, telecommunications or other related scientific or technical discipline. The minimum/general experience may be reduced by two (2) years for a Master's degree in a technical discipline. An additional two (2) years of experience over and above the minimum/general requirement can be substituted for an Associates degree or an additional four (4) years of experience can be substituted for a Bachelor's degree. Additional experience must be gained from a combination of education, training, or certification (technical diploma) that provides the requisite knowledge, skills, and abilities.

7.a Commercial Labor Category: Senior Computer Programmer

Minimum/General Experience: This labor category requires a minimum of eight (8) years experience. Experience includes: demonstrated experience with third and fourth generation programming languages, experience with object-oriented programming, ability to develop complex software to satisfy design objectives, and experience developing software for data base management systems. General experience includes knowledge of Internet working, client/server environments, and demonstrated experience supervising software development projects.

Functional Responsibility: Supervises software development projects. Develops logic flow charts and pseudo-code. Translates software specifications into software applications. Tests, debugs, and refines software to produce the required product. Prepares required documentation, including both program-level and user-level documentation. Enhances software to reduce operating time or improve efficiency. Provides daily supervision to staff members. Oversees computer programmers and reviews their work to create or maintain operating systems, communications software, data base management systems, compilers, assemblers, and utility programs. Modifies existing software as well as creates special-purpose software to ensure efficiency and integrity between systems and applications. Provides supervision to staff members.

Minimum Education: The qualified individual shall have a Bachelor's degree in computer science, information systems, engineering, business, telecommunications or other related scientific or technical discipline. The minimum/general experience may be reduced by two (2) years for a Master's degree in a technical discipline. An additional two (2) years of experience over and above the minimum/general requirement can be substituted for an Associates degree or an additional four (4) years of experience can be substituted for a Bachelor's degree. Additional experience must be gained from a combination of education, training, or certification (technical diploma) that provides the requisite knowledge, skills, and abilities.

7.b Commercial Labor Category: Computer Programmer

Minimum/General Experience: This labor category requires a minimum of six (6) years experience which includes experience as an applications programmer on data base management systems, knowledge of computer equipment and ability to perform computer programming in order to develop complex software to satisfy design objectives. Demonstrated ability to work independently or under only general direction.

Functional Responsibility: Analyzes functional business applications and design specifications for functional activities. Develops block diagrams and logic flowcharts. Translates detailed design into computer software. Tests, debugs and refines computer software to produce the required product. Prepares required documentation, including both program and user-level documentation. Enhances software to reduce operating time or improve efficiency. Provides technical direction to programmers to ensure program deadlines are met.

Minimum Education: The qualified individual shall have a Bachelor's degree in computer science, information systems, engineering, business, telecommunications or other related scientific or technical discipline. The minimum/general experience may be reduced by two (2) years for a Master's degree in a technical discipline. An additional two (2) years of experience over and above the minimum/general requirement can be substituted for an Associates degree or an additional four (4) years of experience can be substituted for a Bachelor's degree. Additional experience must be gained from a combination of education, training, or certification (technical diploma) that provides the requisite knowledge, skills, and abilities.

8.a Commercial Labor Category: Principal Technical Specialist

Minimum/General Experience: This labor category requires a minimum eight (8) years of progressive experience in the supervision and support of technical projects in any combination of the following activities: implementing electrical and mechanical designs, system and component installation/integration, test planning and testing, operational troubleshooting, and operating general-purpose commercial and military-unique equipment. General experience must include increasing responsibilities in technical management and knowledge of embedded computer technology.

Functional Responsibility: Plans and supervises the performance of technical work on projects. Works with minimal supervision and, plans and ensures the quality, schedule and cost compliance of the installation, operation, maintenance configuration, troubleshooting, and repairs of general-purpose commercial and military-unique systems. Leads the preparation of engineering plans and site installation technical design packages. Coordinates with the Program/Project managers, customers, and user

representatives to ensure accurate solutions and user satisfaction on technical matters. Oversees and, when necessary, performs systems analysis and evaluation of hardware capabilities and configurations.

Minimum Education: The qualified individual shall have an Associate degree in computer science, information systems, engineering, business, or other related scientific or technical discipline. The minimum/general experience may be reduced by two (2) years for a Bachelor's degree in a technical discipline. An additional two (2) years of experience over and above the minimum/general requirement can be substituted for an Associate's degree. Additional experience must be gained from a combination of education, training, or certification (technical diploma) that provides the requisite knowledge, skills, and abilities**.**

8.b Commercial Labor Category: Senior Technical Specialist

Minimum/General Experience: This labor category requires a minimum eight (8) years of progressive experience in the supervision and support of technical projects in any combination of the following activities: implementing electrical and mechanical designs, system and component installation/integration, test planning and testing, operational troubleshooting, and operating general-purpose commercial and military-unique equipment. General experience must include increasing responsibilities in technical management and knowledge of embedded computer technology.

Functional Responsibility: Supervises the performance of technical work on projects. Works with minimal supervision and, plans and ensures the quality, schedule and cost compliance of the installation, operation, maintenance configuration, troubleshooting, and repairs of general-purpose commercial and military-unique systems. Coordinates the preparation of engineering plans and site installation technical design packages. Interfaces with the Program/Project managers, customers, and user representatives to ensure accurate solutions and user satisfaction on technical matters. Oversees and, when necessary, performs systems analysis and evaluation of hardware capabilities and configurations.

Minimum Education: The qualified individual shall have a Bachelor's degree in computer science, information systems, engineering, business, or other related scientific or technical discipline. The minimum/general experience may be reduced by two (2) years for a Master's degree in a technical discipline. An additional two (2) years of experience over and above the minimum/general requirement can be substituted for an Associates degree or an additional four (4) years of experience can be substituted for a Bachelor's degree. Additional experience must be gained from a combination of education, training, or certification (technical diploma) that provides the requisite knowledge, skills, and abilities.

8.c Commercial Labor Category: Technical Specialist

Minimum/General Experience: This labor category requires a minimum four (4) years of progressive experience in the execution and support of technical projects in any combination of the following activities: implementing electrical and mechanical designs, system and component installation/integration, test planning and testing, operational troubleshooting, and operating general-purpose commercial and military-unique equipment. General experience must include increasing responsibilities in technical management and knowledge of embedded computer technology.

Functional Responsibility: Performs direct technical support to projects. Works under supervision of more senior technical specialists, ensures the quality of workmanship, adheres to schedules and complies with the requirements of the installation, operation, maintenance configuration, troubleshooting, and repairs of general-purpose commercial and military-unique systems. Prepares engineering plans and site installation technical design packages. Interfaces with the Program/Project managers, customers, and user representatives to ensure accurate solutions and user satisfaction on technical matters.

Minimum Education: The qualified individual shall have an Associate degree in computer science, information systems, engineering, business, or other related scientific or technical discipline. The minimum/general experience may be reduced by two (2) years for a Bachelor's degree in a technical discipline. An additional two (2) years of experience over and above the minimum/general requirement can be substituted for an Associate's degree. Additional experience must be gained from a combination of education, training, or certification (technical diploma) that provides the requisite knowledge, skills, and abilities.

8.d Commercial Labor Category: Junior Technical Specialist

Minimum/General Experience: This labor category requires a minimum two (2) years of experience performing semi-standardized or semi-prescribed assignments, requiring judgmental and problem-solving skills. Should have progressive experience in selecting or adapting standard procedures or equipment for technical problems in the installation, analysis, and design of systems and equipment. General experience must include knowledge of embedded computer technology.

Functional Responsibility: Performs direct technical support to projects. Works under supervision of more senior technical specialists, ensures the quality of own workmanship, adheres to schedules and installs, operates, maintains configures, troubleshoots, and repairs general-purpose devices, components, software, and equipment. Implements engineering plans and site installation technical design packages. Receives initial

instructions, equipment requirements and technical direction from supervisor or engineer; technical adequacy of work is reviewed upon completion.

Minimum Education: The qualified individual shall have an Associate degree in computer science, information systems, engineering, business, or other related scientific or technical discipline. The minimum/general experience may be reduced by two (2) years for a Bachelor's degree in a technical discipline. An additional two (2) years of experience over and above the minimum/general requirement can be substituted for an Associate's degree. Additional experience must be gained from a combination of education, training, or certification (technical diploma) that provides the requisite knowledge, skills, and abilities.

9.a Commercial Labor Category: Senior Technical Design Specialist

Minimum/General Experience: This labor category requires a minimum of six (6) years of progressively responsible experience in detailed design/engineering activities related to equipment, product engineering and design projects. These activities could include site plans, riser diagrams, interface/interconnect drawings, equipment/product layouts, mechanical and electrical schematics, professional renderings and animations for promotions and marketing, LAN/network designs and custom hardware/network installations. At least two (2) years of the individual's experience shall include technical design activities related to in compliance with applicable commercial and Government standards. Must be knowledgeable, capable, and experienced in the use of computer-based drafting and design tools (such as AutoCAD).

Functional Responsibility: Performs complex engineering design tasks, directs and develops virtual 3-D renderings and animations, provides design and drafting support using computer-based drafting and design tools with minimal engineering guidance. Assists the Technical Design Specialist and Jr. Technical Design Specialist in CAD. Provides guidance regarding compliance to Government drawing and configuration management standards, and direction on task design requirements related to equipment and systems. Responsible for ensuring compliance with delivery schedules, works closely with systems and design engineers, project leads and program managers and ensures adherence to quality assurance processes and procedures.

Minimum Education: Associates degree in a technical discipline. The minimum/general experience may be reduced by two (2) years for a Bachelor degree in a technical discipline. An additional two-(2) years of experience over and above the minimum/general requirement can be substituted for an Associates degree. Additional experience must be gained from a combination of education, training, or certification (technical diploma) that provides the requisite knowledge, skills, and abilities.

9.b Commercial Labor Category: Technical Design Specialist

Minimum/General Experience: This labor category requires a minimum of four (4) years of progressively responsible experience in detailed design/engineering activities related to equipment, product engineering and design projects. These activities could include site plans, riser diagrams, interface/interconnect drawings, equipment/product layouts, mechanical and electrical schematics, professional renderings and animations for promotions and marketing, LAN/network designs and custom hardware/network installations. At least two (2) years of the individual's experience shall include technical design activities related to in compliance with applicable commercial and Government standards. Must be knowledgeable, capable, and experienced in the use of computer-based drafting and design tools (such as AutoCAD).

Functional Responsibility: Performs engineering design tasks, develops virtual 3-D renderings and animations, and provides design and drafting support using computer-based drafting and design tools with nominal engineering guidance. Takes direction from Sr. Technical Design Specialists and assists Jr. Technical Design Specialists in CAD. Ensures compliance to Government drawing and configuration management standards, and direction on task design requirements related to equipment and systems. Ensures compliance with delivery schedules, works closely with systems and design engineers, project leads and program managers and follows quality assurance processes and procedures.

Minimum Education: Associates degree in a technical discipline. The minimum/general experience may be reduced by two (2) years for a Bachelor's degree in a technical discipline. An additional two (2) years of experience over and above the minimum/general requirement can be substituted for an Associates degree. Additional experience must be gained from a combination of education, training, or certification (technical diploma) that provides the requisite knowledge, skills, and abilities.

9.c Commercial Labor Category: Junior Technical Design Specialist

Minimum/General Experience: This labor category requires a minimum of two (2) years of progressively responsible experience in detailed design/engineering activities related to equipment, product engineering and design projects. These activities could include site plans, riser diagrams, interface/interconnect drawings, equipment/product layouts, mechanical and electrical schematics, professional renderings and animations, LAN/network designs and custom hardware/network installations. Must be knowledgeable, capable, and experienced in the use of computer-based drafting and design tools (such as AutoCAD).

Functional Responsibility: Performs engineering design tasks, prepares virtual 3-D renderings and animations and provides design and drafting support using computer-based drafting and design tools under engineering guidance. Takes direction from Sr. Technical Design Specialists and assists Jr. Technical Design Specialists in CAD. Seeks guidance from more senior technical design personnel to ensure compliance to Government drawing and configuration management standards, and following direction on task design requirements related to equipment and systems. Complies with delivery schedules, works with systems and design engineers, project leads and program managers and follows quality assurance processes and procedures.

Minimum Education: Diploma from a technical institution. The minimum/general experience may be reduced by two (2) years for an Associate degree in a technical discipline. An additional two (2) years of experience over and above the minimum/general requirement can be substituted for a Technical Diploma. Additional experience must be gained from a combination of education, training, or certification (technical diploma) that provides the requisite knowledge, skills, and abilities.

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10. Commercial Labor Category: Technical Document Specialist

Minimum/General Experience: This position requires a minimum of four (4) years of progressively responsible experience, of which at least two (2) years must be specialized experience developing, editing, and producing technical and graphic documentation for information or engineer technology systems. Must have a thorough understanding of computer processing, including commonly used information technology and engineer terminology and must possess good organizational skills.

Functional Responsibility: Prepares technical documentation, which includes researching for applicable government and industry documentation pertaining to all aspects of information and general engineering. Demonstrated ability to work independently or under only general direction developing, editing, and producing technical and graphic documentation for information technology systems. Must have a basic understanding of computer processing, including commonly used information technology terminology. Assists in collecting and organizing information required for preparation of user's manuals, special reports, training materials, installation guides, proposals, and reports. Revises text and recommends changes in scope, format, and content to ensure conformance with established standards. May edit, standardize, or make changes to material prepared by other writers. Duties include writing, editing, and graphics presentation of engineering and management information for both technical and non-technical personnel. Organizes material and completes writing assignments with regard to order, clarity, conciseness, style, and terminology. Interprets technical documentation standards and prepares documentation accordingly. Must possess strong

organizational, communication, and presentation skills. Performs final quality assurance on all materials.

Minimum Education: This labor category requires a minimum an Associate degree with specialization in English, journalism, literature or other related discipline. The minimum/general experience may be reduced by two (2) years with a Bachelor degree in a appropriate discipline. An additional two (2) years of experience over and above the minimum/general requirement can be substituted for an Associates degree. Additional experience must be gained from a combination of education, training, or certification (arts diploma) that provides the requisite knowledge, skills, and abilities.

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11. Commercial Labor Category: Technical Support Analyst

Minimum/General Experience: This labor category requires a minimum of four (4) years of experience in performing progressively more responsible tasks of technical typing/word processing, desktop preparation of graphics presentations, data entry and verification, or other office support. Typically required to work under close supervision and direction. The individual must be familiar with the operation of the following office equipment: personal computers, scanners/optical character readers, duplicating, and datafax.

Functional Responsibility: Prepares draft and final-form technical documents. Should be familiar with terminology specific to the assigned work and capable of typing at least 60 words per minute. Must be capable of typing technical narrative and data and transcribing audio to written text. Will be responsible for accurate spelling, proper grammar usage, proper format, and proofreading finished documents. Is expected to use various word processing equipment and software applications.

Minimum Education: Requires a high school diploma. The minimum/general experience may be reduced by two (2) years with an Associate degree in an English/journalism, business or in computer science or related study.

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12. Commercial Labor Category: Graphics Support Analyst

Minimum/General Experience: This labor category requires a minimum of at least two (2) years progressively responsible experience in graphics and 3-D animation activities related to presentations, pamphlets, videos, brochures, marketing, promotional materials, or related products which require the inclusion of charts, graphs, viewgraphs, 35mm slides, illustrations, artwork, solid images, line figures, photographs, sketches and pictures as part of the finished product. Must be knowledgeable, capable, and

experienced in the use of commercial word processing software, graphics and animation software, and desktop publishing systems.

Functional Responsibility: Performs artistic and technical work in design, illustration, and preparation of drawn, printed and photographed material for publication, professional renderings and animations for promotions and marketing, duplication, television broadcasting and other audio and visual presentations. Ensures compliance to Government and commercial graphics standards and with delivery schedules. Works with systems and design engineers, project and program managers. Develops and updates graphic presentations to improve the quality and enhance the usability of reports, plans, and presentation documents. Responsible for integrating graphics generated with automated tools within customer documents. Follows quality assurance processes and procedures.

Minimum Education: Associates degree in graphics/fine arts is desired. The minimum/general experience may be reduced by two (2) years for a Bachelor degree in graphics/fine arts, television arts, communications, and associated disciplines. An additional two-(2) years of experience over and above the minimum/general requirement can be substituted for an Associates degree. Additional experience must be gained from a combination of education, training, or certification (technical diploma) that provides the requisite knowledge, skills, and abilities.

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13. Commercial Labor Category: Security Systems Specialist

Minimum/General Experience: This position requires a minimum of three (3) years demonstrated experience in tactical intelligence. Specialized experience includes a working knowledge of strategic intelligence and the national intelligence community. Specific work experience includes a broad background in COMSEC, OPSEC and NISPOM, NISPOM Support, security testing to support Government requirements, Government Security Assessment Program (SAP) and industrial security which includes comprehensive experience in intelligence techniques and operations. General experience includes application of COTS software such as MS Office, data bases, and multimedia software.

Functional Responsibility: Performs as a subject matter expert capable of performing complex, difficult time-critical analyses. Must possess the ability to apply facts and estimates derived from numerous sources to a variety of problems having different technical aspects.

Minimum Education: The qualified individual shall have a Bachelor's degree in computer science, information systems, business, education or other related disciplines. The minimum/general experience may be reduced by two (2) years for a Master's

degree in a technical discipline. An additional two (2) years of experience over and above the minimum/general requirement can be substituted with an Associates degree. An additional four (4) years experience can be substituted over and above the minimum/general requirement without a degree. This additional experience must be gained from a combination of education, training, or certification (technical diploma) that provides the requisite knowledge, skills, and abilities. Individuals shall have acquired the education and experience in one or more of the following areas of specialization:

Business	Industrial Technology	Technology Management
English	Public Administration	Program Management
Education	Information Management	Industrial Management
Data Management	Management Information Systems	Political Science

RADIAN GSA SCHEDULE – GS-35F-0695J			
	LABOR CATEGORIES	FSS PRICE LIST	BPA PRICE LIST
1	Reserved		
2a	Sr. Program Manager	$116.16	$115.00
2b	Program Manager	$79.64	$78.84
2c	Project Manager	$65.00	$64.35
3a	Principal Engineer	$93.60	$92.66
3b	Sr. Engineer	$66.67	$66.00
3c	Engineer	$56.03	$55.47
3d	Jr. Engineer	$48.06	$47.58
4a	Sr. Systems/Logistics Analyst	$111.11	$110.00
4b	Systems/Logistics Analyst	$44.28	$43.84
4c	Jr. Systems/Logistics Analyst	$31.56	$31.24
5a	Principal Computer Systems Analyst	$101.01	$100.00
5b	Sr. Computer Systems Analyst	$75.92	$75.16
5c	Computer Systems Analyst	$61.62	$46.09
5d	Jr. Computer Systems Analyst	$48.46	$47.98
6a	Network Manager	$97.71	$96.73
6b	Network Engineer	$66.38	$65.72
7a	Sr. Computer Programmer	$75.40	$74.65
7b	Computer Programmer	$53.86	$53.32
8a	Principal Technical Specialist	$65.52	$61.89
8b	Sr. Technical Specialist	$46.76	$46.29
8c	Technical Specialist	$38.07	$37.69
8d	Jr. Technical Specialist	$33.78	$33.44
9a	Sr. Technical Design Specialist	$50.00	$49.50
9b	Technical Design Specialist	$47.53	$47.05
9c	Jr. Technical Design Specialist	$25.37	$25.12
10	Technical Documentation Specialist	$38.60	$38.21

11	Technical Support Analyst	$30.20	$29.90
12	Graphics Support Analyst	$25.90	$25.64
13	Security Systems Specialist	$42.32	$41.90

Notes: All rates are for work performed off-site (e.g., at Radian facilities).

STATEMENT OF WORK

1.0 SCOPE

The contractor shall provide non-personal support-services as indicated in the task order either at the government's facilities and/or at the contractor's facilities. These services are needed to accomplish tasks that cannot be accomplished by PM personnel because of time constraints and/or expertise which is not available. The types of required services are: Project Management, System Engineering, Software Engineering, Testing, Training, Documentation Support. Administration, Quality Assurance, Integrated Logistics Support, Acquisition Management, and Information Technology support to the PM. The contractor shall provide as specified by individual task orders any and all Program Management Support Services identified within this document for Army Program Offices worldwide.

2.0 CONTRACTOR RESPONSIBILITIES

The specified tasks required of the contractor's personnel are defined below. The Government shall retain the right to refuse any person who is bid that does not meet the qualifications required to perform any specified tasks.

a. Systems Engineering: These services include general systems engineering, systems implementation planning, target development, and system test and evaluation. Products include various specifications, plans, analyses, modeling, simulations, and reports.

b. General Support Engineering: Services include reviewing engineering output in the areas of systems level operation and maintenance procedures, performance improvements criteria, tools assessments, metrics management, quality assurance, configuration management, maintenance practices, and technical orders. Assist the PM with the design, development, review, and analysis of' scheduling and logistic activities. Monitor and review manuals, regulations, pamphlets, and various Army acquisition documentation for applicability to the PM.

c. Test and Evaluation: Services include coordinating the PD with the IPT on test schedule, location, review of TEMP, System Evaluation Plan, Evaluation of Test Hardware, Detailed Test Plan, Test Incident Reports, collected test data, final test System Evaluation Report, test planning, surveys, test monitoring, reports and recommendations.

d. Technical Studies, Investigations or Analyses: Services include feasibility investigations, engineering and ILS investigations, BOIP (Basis of Issue Plan) for items, cost analyses, and analyses and evaluation of equipment,

systems, COTS or GOTS software products, and market investigations, quantities of deliveries, and assemblage of items.

e. Information Technology products include database development/maintenance, CD-ROM development, software development, data automation requirements, performance/detailed specifications, plans, manuals, analyses, reports, system operations, installation, maintenance, enhancements, configuration management and training programs.

f. PM Administrative Support: Provide the following services: clerical, mail, message, and facsimile processing, reproduction services, graphics support, and a technical data library. Additionally, in a facility coordinator role the contractor shall provide assistance with physical security, clearance verification, receptionist duties, and visitor control.

g. Presentation Materials: In conjunction with the completion of tasks issued to accomplish the requirements of this SOW, the contractor may be required to provide various presentation materials. Types and quantities of the required materials will be specified in conjunction with the applicable CDRL.

h. Meeting Reports: The contractor may be required to prepare reports on selected meetings conducted exclusively between the contractor and the government. Task Orders will be issued to identify the requirement for any such reports and they will be tied to an existing CDRL.

2.1 APPLICABLE DOCUMENTS

a. Documents that are applicable to the effort associated with this Statement of Work (SOW) are listed. It should be noted that MIL-STDs referenced are for information/guidance purposes only unless specified in individual task orders. These documents are in current usage by the PM and as such serve to define further typical DoD standards and parameters, which must be considered by the contractor. The contractor shall include pertinent references to these documents in its final products. The contractor shall have a working knowledge of relevant rules, regulations, and directives in order to eliminate a lengthy learning period This listing of Applicable Documents may not include all documents which will be required for this effort. Additional documents relevant to this effort will be specified on the individual Task Orders awarded. Changes/updates to the following list will be addressed in the respective Task Order.

DoDD 5000 Series Documentation

DoDI 7045.7, 9 Apr 87 Implementation of the Planning, Programming and Budgeting System (PPBS), Thru Change 1

DoDD 7045.14, 28 July 90 The Planning, Programming and Budgeting System (PPBS)(Including Change 1)

DFAS-IN Regulation 37-1, 18 Sep 95 Finance and Accounting Policy Implementation

DFAS-IN Manual 37-100-99, Financial Management – The Army Management Structure (Fiscal Year 99)

MIL- HDBK-881, 2 Jan 98 Work Breakdown Structure

AR 70-1, 15 Jan 98 Research, Development, and Acquisition, Army Acquisition Policy

DoD 7000.14-R, DoD Financial Management Regulation

AR 380-67, 9 Sept 88 Department of the Army Personnel Security Program W/ AMC Supplement 1

AMC Pam 715-13, 1 May 96 C/SSR Joint Guide

b. Any Task Orders issued to the contractor which contain references to documents not listed will have those documents attached as part of the tasking documentation or will have instructions as to how to obtain the required documents. The contractor will utilize a technical library on-line when available. When the requirements of the applicable document conflict with the instructions set forth in the tasking document, the contractor should bring this to the attention of the COR/Procuring Contracting Officer.

c. The contractor shall assist in developing, maintaining and updating DODD-5000. documentation. In addition, the contractor shall assist in preparing and coordinating program documents and reports required by external agencies to include the Department of the Army Staff. The contractor shall participate in DA-level Integrated Product Teams. The contractor shall assist in preparing the milestone documentation packages to support Milestone decisions.

2.2 CONCEPT FOR OPERATIONS

a. The contractor shall support those organizational elements specified. The basic concept for the relationship of organizational elements is that of the Project Manager and Product Managers or Product Directors establishing program objectives. Managers will evaluate performance of the activities to determine if objectives are being achieved in a timely, cost effective manner. Any necessary correction or redirection will be brought to the attention of the Contracting Officer's Representative (COR).

2.3 MISCELLANEOUS

a. In addition to labor hours and ordinary materials, there will be, on an as needed basis, a requirement for several categories of materials to meet special short lead-time or short term requirements such as subcontracting, emergency purchases of supplies, TDY, inter-site travel, training, and quick reaction capabilities involving materiel packing, handling, and special shipping. Such efforts will be documented on delivery orders and will be purchased on an individual basis per the direction of the PCO.

b. Travel will include frequent local area meetings and less frequent trips to field offices and contractor facilities at a variety of locations throughout the United States. Overseas travel also may be required. Travel requirements may arise on short notice and may involve TDY.

c. Contractor personnel may be required to attend training courses at the request of the government. Training will include only those specialized courses necessary for the proper support to the project office and must have the approval of the Contracting Officer. BPA holder personnel proposed to meet the Government Statement of Work (SOW) must possess the education, experience and skills of their FSS labor category and they are expected to be able to meet the minimum requirements of the SOW without training at the expense of the Government. Training to meet such minimum requirements must be provided by the BPA holder and be included in the fixed price labor rates. In situations where the “Government User” being supported by an order under the basic contract requires some “unique” level of support beyond the minimum requirements of the SOW because of program/mission-unique needs, then the BPA holder may directly charge the cost of the training as an ODC under the task order, provided that the training is authorized in the order.

d. Emergency purchases of supplies in response to a quick reaction requirement may be required, but only with the approval of the Contracting Officer.

e. Subcontracting, including consultants, may be utilized as a contingency in order to react to short lead-time, short term or special needs requirements with the approval of the Contracting Officer.

3.0 TASK ORDER MANAGEMENT

The contractor shall designate one on-site individual who is responsible for the cost, schedule and technical performance described herein. The contractor shall determine the management, organization authority, responsibility, controls, as applicable to this project. The contractor shall schedule work and staff in an optimum manner focusing on economies and efficiencies. The contractor must remain flexible and responsive to a changing

acquisition management environment that often has new direction and revised priorities. The contractor shall plan, coordinate, and supervise all assigned tasks to insure the tasks are completed within the time required and in the quality expected. The contractor shall maintain an accurate, job time-cost accounting system that will permit the examination of the contractor's cost-effectiveness and manpower utilization in support of the Government.

3.0.1 SCHEDULE AND COST

The contractor project manager shall manage the schedule of work, which allows his work force to meet the delivery of products as specified by the government. The contractor shall determine all major and minor problems associated with the areas of cost and scheduling techniques and shall recommend solution(s) to these problems and propose alternatives or solutions to all problems identified. The contractor shall notify the government of all revisions to the engineering and management methods and techniques utilized.

3.0.2 CONTROLS

The contractor shall establish control over the use of man-hours in delivering the products of this project. The contractor shall determine the control needed to prevent the use of work codes or project numbers by unauthorized personnel.

3.0.2.1 SCHEDULE AND COST TRACKING

The contractor shall determine the method for assessing the cost, schedule, and technical performance of the work of this project. The contractor shall determine the procedures for relating cost to schedule and technical performance to assess the logical relationship of these three factors as they apply to relevant tasks. Contract Funds Status Reports are required in accordance with Task Orders.

3.0.2.2 MANAGEMENT REVIEWS

The contractor shall present and administratively support progress reviews. These reviews will be held at the PM or the contractor's facility in accordance with the Task Orders. The topics of these reviews shall include staffing, management concerns, scheduling, costs, planned procurements, identification and discussion of program issues, and status of resolved or unresolved action items from previous meetings. The contractor shall make input to the agenda.

3.0.2.3 STATUS REPORT COST AND PERFORMANCE

The contractor shall prepare and deliver a CDRL item entitled Project Status Report Cost and Performance in accordance with individual Task Orders. This report shall contain a summary of staffing by category and summary of work performed during the reporting period; updated milestones to reflect changes in the project schedule; a synopsis of all meetings and travel the contractor has conducted in performance of the contract; all approved government task revisions; a synopsis of contractor proposed contractual amendments; a detailed description of all problems, risks, or delays experienced during the reporting period, and a description of all planned activity during the next reporting period (including risks and risk mitigation for the prospective effort). These reports shall indicate performance in terms of predicted and planned progress against actual progress. Cost performance shall include budgeted versus actual expenditures.

3.0.2.4 DELIVERABLE MANAGEMENT

Individual taskers shall be maintained in an electronic form and backed-up to ensure immediate availability should a “hard-copy” (paper) version be required. Every effort will be made to provide a “paperless” environment. The contractor shall maintain a data base to track the status of taskers, deliverables/CDRLs.

3.1 PROGRAM MANAGEMENT

A principal area of focus for the contractor work force shall be to provide management assistance for many of the functions assigned to the PM and other Army Project Offices. These functions are divided among the organizational elements of the PM and other Army Project Offices. The contractor shall provide support necessary to develop schedules, cost estimates, required documentation, and analyses of all aspects of acquisition management, business management and congressional liaison.

3.1.1 PROGRAM COST ESTIMATING AND ANALYSIS

3.1.1.1 COST ESTIMATING AND ANALYSIS

The contractor shall collect, review, and update cost data for software and hardware products, and prepare other special cost estimates. Virtually all of this work is to be conducted on-site with limited travel involved. The contractor shall use spreadsheet models and other government provided tools. The Government will approve all the tools and the methodology used in cost estimating. All estimates are to be updated as required. The contractor shall provide personnel

cognizant with applicable Army and DOD costing regulations. Most importantly, all products shall be documented in order to create an audit trail for the government cost representative and shall be subject to internal and external reviews.

3.1.1.2 COST ESTIMATING

a. The contractor shall provide the services to update estimates for the PM products and other associated projects and programs based on data from the PM and other activities, which either define the system requirements in more detail or define alternate program acquisition strategies.

b. In performing these tasks, the contractor shall prepare cost estimates for:

1. Software,
2. Hardware,
3. Pre-planned, Product Improvement,
4. Testing,
5. Training,
6. Research and Development,
7. Military Construction, Fielding, Sustaining,
8. Module and Unit Costs, and
9. Miscellaneous Costs.

c. These estimates shall be developed in a timely manner and in accordance with the requirements for presentation of Life Cycle Cost estimates for Army systems. The contractor shall be able to update cost estimates to current-year dollars, then year dollars, project base year dollars, or any other base year designated by PM personnel using the most current DOD inflation indices. The contractor shall develop estimates on a funding appropriation basis and on a logistics category basis for each program.

3.1.2 ASSISTANCE IN DEVELOPING POSITIONS

The Contractor shall provide comments to program managers in areas such as:

a. Architectural changes,
b. New or changed prototyping strategy,
c. Incorporation (or deletion) of new (or existing) technical requirements,
d. Changes in planned organizational usage and ILS concepts,
e. Sizing of impact of hardware changes on software and vice-versa, and
f. Funding justification and cost accounting.

3.1.3 REVIEWS AND STUDIES

As required, the contractor shall provide reviews and/or studies of other program cost analyses, data base analyses, or other related activities. The contractor will assist with Integrated Product Team (IPT) meetings and shall record and publish minutes. The contractor will assist in preparing for Milestone/Program reviews and will record and publish the results. The contractor shall document findings, lessons learned, and report the same to the government in a timely manner.

3.1.4 MASTER INTEGRATED SCHEDULE

The contractor shall assist in the maintenance of a Master Program Schedule. This schedule shall be integrated in such a manner as to account for significant dependencies.

3.1.4.1 PROJECT SCHEDULE ADMINISTRATION

The contractor shall provide assistance and training to program office personnel in developing schedules for their offices and directorates. This assistance and training shall include direction in the use of MS Project 95, MS ACCESS, and methods for integrating proposed and "what-if" schedules into the project office master schedule.

3.1.4.2 MILESTONE TRACKING

When inputting proposed schedules as a subset of the Master Schedules, the contractor shall report schedule deviations for all milestones. For key milestone deviations reflecting slippage, the contractor shall identify the impact of the slippage and project office action necessary to support on-time completion of the end activity. The contractor shall assist in the importing of contractor schedules into the PM Master Schedule by project.

3.2 PROGRAM MANAGEMENT DOCUMENTATION

The contractor shall provide recommendations to the program manager for developing and/or maintaining the acquisition management documentation required by DoD 5000 series, and applicable Army regulations. A primary function of the contractor is to review all documentation for continuity, compliance, and accuracy; making recommendations for corrections and improvements. This documentation includes, but is not limited to the following:

1. Mission Need Statement,
2. Operational Requirements Document (ORD),
3. Program Life Cycle Cost Estimate,
4. Acquisition Program Baseline (APB),

5. Test and Evaluation Master Plan (TEMP)
6. Modified Integrated Program Summary (MIPS) with all annexes,
7. Integrated Support Plan (ISP),
8. Program Management Plan (PMP),
9. Defense Acquisition Executive Summary (DAES),
10. AAE/VCSA Data Book,
11. System Threat Assessment Report (STAR),
12. Critical Intelligence Parameters (CIP),
13. Cost and Operational Effectiveness Analysis (COEA),
14. Competitive Alternative Source Waiver,
15. Memorandum of Agreement,
16. Memorandum of Understanding,
17. P-Forms, R-Forms and P18a Forms,
18. Smart Charts,
19. Quad Charts,
20. Congressional Briefing Books,
21. Acquisition Strategy Reports (ASR),
22. Milestone Read – Ahead Packages,
23. Exit Criteria,
24. Integrated Logistics Support Plans (ILSP),
25. Training Development Plans (TDP)
26. Material Fielding Plans (MFP),
27. Material Fielding Agreements (MFA),
28. Risk Assessments.
29. Army Acquisition Program Executive Reporting System (AAPERS)
30. Selected Acquisition Report (SAR)
31. Solicitation documentation
32. Handbooks

3.3 ENGINEERING SUPPORT OF PM PRODUCTS

a. System, hardware, and software engineering input required on engineering changes and upgrades of the PM products is to be compatible with the common hardware/software. The contractor shall also configure hardware, software and communication systems for demonstration and fielding and will install systems both at the PM and at other sites designated by the Government.

b. The contractor shall provide engineering input to system Product Managers, Product Directors, and Action Officers in engineering analysis of computer-assisted technologies employed. For these engineering analyses, the contractor shall have working knowledge of system threat assessments pertaining to survivability in electromagnetic, ADP (data corruption), and chemical contaminated environments. The engineering analyses shall consider, but not be limited to life cycle costs (5-10 years), value engineering, and engineering changes submitted to the Project Management Office for approval.

The analyses shall also consider engineering alternatives in computer-assisted technologies such as data processing architectures/configuration for intelligence operations at Echelon Above Corps (EAC), Corps, Heavy/Light Division, and special intelligence operations ranging from sensitive compartmented information (SCI) to unclassified security levels.

c. The contractor shall evaluate design approaches to system interfaces and develop the documentation, including System Integration Plans, to ensure interface requirements are achieved. The contractor shall report problem areas and make specific recommendations to the program office to resolve problems or issues.

d. The contractor shall evaluate design approaches to hardware use (COTS, GOTS and Development), design and architectures, system interfaces, and develop the appropriate documentation. The contractor shall report problem areas and make specific recommendations to the program office to resolve problems or issues. The contractor will evaluate RAM as well as EMI/EMC implications. Engineering analyses shall consider the cost-effectiveness of implementation of high-speed, large capacity storage and retrieval technologies for highly active, moderate, and archival transaction processing; graphical/lexical processing with high-resolution, color, flat panel displays/monitors; and the implementation of wireless LANs to enhance mobility/flexibility and to reduce setup and tear-down times. The contractor will configure systems for demonstrations, tests and fieldings.

e. The contractor shall investigate and analyze the user requirements and computer resource requirements as they relate to design issues, resource limitations, and requirements allocation. All evaluations shall include recommendations and proposed solutions. The scope of this requirements analysis work shall encompass, as a minimum, the following:

1. Pertinent Army and System Requirements,
2. Engineering Change Proposals/Requests,
3. Deviations,
4. Test Plans, Descriptions and Reports,
5. Requirements Reviews,
6. System Developer Deliverables,
7. Metrics,
8. COE,
9. PEO generated requirements,
10. Performance analysis.

f. The contractor shall provide the Communications Engineering support required to acquire and field communications products under the responsibility of the Project Management Office. This support shall encompass all phases, the acquisition process, and include the evaluation and specification of

communications architectures and operational requirements, as well as the assessment of design approaches for interfacing communications products with other Army and DoD systems. This support shall also include participation in communications product planning, reviews, and evaluations; and, evaluating and participating in the final test accreditation.

3.3.1 MODELING AND SIMULATION

The contractor shall have a working knowledge of modeling and simulation (M/S) software and systems used within the Services and in particular, the Army. The contractor shall perform analyses of the various M/S capabilities and recommend the best approach to employing the existing capabilities as well as recommending a course of action for development of M/S technologies. The contractor shall also have knowledge of industry M/S capabilities that could be employed for the benefit of system trade studies. The contractor shall maintain any M/S planning documents and provide briefings when called upon to coordinate M/S applications for the systems under development. The contractor shall act as the point of contact for M/S matters as they may be addressed for the various programs.

3.3.2 REQUIREMENTS ANALYSIS AND VALIDATION

Using the government approved Operational Requirements Document and the User Functional Description Document the contractor shall investigate and analyze the user requirements and computer resource requirements as they relate to design issues, resource limitations, and requirements allocation. All evaluations shall include recommendations and proposed solutions. The scope of this requirements analysis work shall encompass, as a minimum, the following:

1. Pertinent Army and System Requirements,
2. Engineering Change Proposals/Requests,
3. Deviations,
4. Test Plans, Descriptions and Reports,
5. Requirements Reviews,
6. System Developer Deliverables,
7. Metrics, and
8. Requirements Verification and Validation.

3.3.3 DESIGN SUPPORT

a. The contractor shall prepare evaluations of specifications and drawings, including revisions; and participate in design reviews and audits of those documents. The contractor shall prepare for and attend meetings, requirements reviews, design reviews, working groups, and briefings related to system and software development, and security accreditation and certification assess progress against the requirements. The contractor shall report issues and/or

problems and recommend to the PM specific actions to resolve them. The contractor shall evaluate and recommend solutions to security issues and problems; and will review PM actions items and problem or discrepancy reports.

b. The contractor shall investigate and analyze the developer's design approach, methodology, processes, and ability to efficiently and effectively meet system requirements All evaluations shall include recommendations and proposed solutions. The scope of this work shall encompass, at a minimum, supporting the following:

1. All aspects of the system design,
2. Formal and Informal Design Reviews,
3. System Developer Deliverables,
4. Metrics,
5. Test Plans, Descriptions and Reports,
6. Code Analysis/Inspection,
7. Human Factors Engineering,
8. Prototyping,
9. Access COTS and GOTS ,
10. Develop Algorithms,
11. Define Data Flow Processes.

3.3.4 DEVELOPMENT

The contractor shall assist the Government in the oversight of primary contractors and their development of the PM sponsored products. Additionally, the contractor , at the direction of PM 's Product Managers, shall evaluate COTS and GOTS products, prototype system capabilities, assess the prime contractor's development processes for compliance with government approved guidelines, and evaluate contractor developed products.

3.3.4.1 DOCUMENT REVIEWS

a. The contractor shall review all development contractor produced documentation, as well as other Army and DoD documentation, considering at least the following factors as appropriate:

1. Compliance with contract standards/requirements;
2. Compliance with PM directives;
3. Adequacy in supporting system development, quality, test, delivery, and field support;
4. Changes/modifications; and
5. Impact on other systems and/or subsystems..

b. All reviews shall be in the submission of technical reports, which shall include, as appropriate, recommendations and proposed solutions.

3.3.4.2 QA AND CM

The contractor shall assist in the evaluation of and participate in software-related QA and CM processes and products. All reports shall include recommendations and proposed solutions. These processes and activities are discussed in detail in D.3.4 and shall include, but not be limited to the following:

a. FCA/PCA,
b. Software Management and Change Processes,
c. Configuration Control Boards,
d. Developer QA and CM Procedures,
e. Developer QA and CM Results,
f. Production Item Inspections
g. Production Qualification Testing
h. Follow-on Test and Evaluation
i. First Unit Equipment Inspections

3.3.4.3 TEST WITNESSING

The contractor shall attend system and software testing, and assist in the evaluation of the developer's associated test processes, organization, test plans and procedures, and test results. All evaluations shall include recommendations and proposed solutions.

3.3.4.4 SOFTWARE METRICS

a. The contractor shall collect, analyze, and report metrics for at least the following areas:

1. Software Faults,
2. Requirements Validation, and
3. Computer Resource Utilization.

b. Contractor evaluations of metrics data shall provide a risk assessment and include recommendations and proposed solutions for minimizing risk.

3.3.5 TEST AND EVALUATION

Test and evaluation of PM systems is an integral and high visibility facet of the development effort. Just as the traditional systems development arena is becoming evolutionary, so must the test and evaluation activities. Because new regulations and guidance now permit combining types of tests and stresses the concept of continuous evaluation, for the purposes of this SOW, test and evaluation includes the following activities:

a. Developmental or Technical Tests,

b. Operational Tests,
c. Government Acceptance Tests,
d. Contractor Tests,
e. Qualification Testing,
f. Regression Testing,
g. Accreditation and Certification Testing,
h. Security Testing,
i. Interoperability and Joint Interoperability Testing,
j. PM systems participation in other systems test activities, and
k. Exercise/Demonstration activity in support of continuous evaluation.

3.3.5.1 SUPPORT TEST PLANNING

The contractor shall review and analyze existing test planning documentation and procedures to ensure their correctness and adequacy. The contractor will update existing documentation or draft and publish the necessary plans and procedures that document the PM testing program, incorporating command direction, and regulatory and statutory guidelines. The contractor will assist in the development and maintenance of integrated test schedules. As these documents and schedules impact on all PM directorates and many external elements, the contractor shall assist in ensuring that proper coordination is effected throughout the development process.

3.3.5.2 SUPPORT TEST RELATED MEETINGS AND CONFERENCES

The contractor shall assist in the coordination of test events with other government agencies. Additionally, the contractor shall assist in the preparation, coordination, and conduct of test related meetings sponsored by the Project Office. The contractor shall attend both contractor and government operational and technical meetings, design reviews, working groups, and briefings related to testing. When directed, the contractor shall prepare, coordinate, and publish minutes documenting these meetings. For meetings outside of the Project Office, where minutes are not appropriate, significant test related issues discussed shall be documented in trip reports. The contractor shall also make recommendations to the government based on topics and issues addressed at these meetings.

3.3.5.3 REVIEW TEST RELATED DOCUMENTATION

The contractor shall review all contractor and government test related documentation. These reviews shall be accomplished in a timely and accurate fashion. Particular attention must be paid to information presented, such as system details, capability statements, numerical data, and schedules, to ensure they are properly stated. Inaccurate data in these documents could cause serious problems during test and evaluation activities. Comments based on

reviews of these documents shall be prepared accurately and constructively and forwarded to the originator in a timely manner.

3.3.5.4 DEVELOP TEST RELATED DOCUMENTATION

The contractor shall develop, coordinate, and, after Government approval, publish test related documentation, specifically the Test and Evaluation Master Plan (TEMP). The TEMP must accurately describe the systems under development, the requirements that will be satisfied by this development, the test events, and the integrated schedule. The TEMP must be periodically reviewed to ensure it accurately reflects all current aspects of PM systems development. The contractor shall also, as required, prepare other test related documentation either separately or as part of documentation prepared by other PM or test community elements to include test plans, test procedures, and test reports.

3.3.5.5 SUPPORT CONDUCT OF TESTS

The contractor shall provide support to the government during the conduct of tests. While Federal regulations prohibit contractor participation in technical and operational test activities, it has proven beneficial to have contractor support on site during test conduct to assist with test related activities and to serve as a liaison with the Project Office. Further, the contractor shall support unit and system, integration, and formal acceptance testing. Due to the rapid pace and short duration of test events, quick resolution to problem situations is essential. The contractor shall provide the support required to assist in the resolution of these situations. During the conduct of the test, periodic status reports shall be provided to the Project Office by the contractor, preferably by e-mail or voice mail.

3.3.6 INSTALLATION AND CHECKOUT

The Contractor shall assist the PM with the installation and checkout of Government sponsored products. Once a product baseline has been established and approved by the Government, the contractor shall coordinate between PM Product Managers and the host site to facilitate the installation of designated products. The contractor, as a minimum, shall accomplish the following activities:

a. Coordinate and Schedule product installation,
b. Conduct site surveys,
c. Submit site survey reports,
d. Install product at Government designated site,
e. Test and validate system operations, and
f. Submit site installation report.

3.3.7 PROTOTYPING ENGINEERING AND SOFTWARE EVALUATION FACILITY

The contractor shall provide engineering support to develop, build, and test prototype hardware and software integration efforts in support of developmental efforts. Additionally, the contractor personnel will perform equipment/hardware configuration tasks, which support prototyping activities, demonstrations, systems configuration and test activities. Related to this task, the contractor shall manage the day-to-day operations of the Software Evaluation Facility. Support shall include systems design and development, configuration management, property accountability, and access control.

3.3.8 DEMONSTRATIONS AND EXERCISES

Because of the evolutionary methods being employed for system development, the PM will be deploying various products to field units in support of demonstrations and exercises. The objective is to provide timely feed back to the product developer. To this end, the contractor shall support the Government in the conduct of demonstrations and exercises by facilitating system configuration, defining interoperability requirements, establishing communications, coordinating events, and providing technical assistance to organizations and end users. At the conclusion of each demonstration or exercise, the contractor shall submit a technical assessment citing both positive and negative aspects of the product being deployed.

3.4 QUALITY ASSURANCE, SOFTWARE QUALITY ASSURANCE AND CONFIGURATION MANAGEMENT

a. The services to be provided by the contractor encompass Systems Quality Assurance (QA), Software Engineering Quality Assurance (SQA), and administration of the Configuration Management (CM) program for the PM . The contractor shall assist in achieving the PM quality goals and productivity objectives for each PM sponsored system. The contractor QA and CM staff shall support:

1. Systems quality assurance (QA) -- for hardware processes,
2. Software quality assurance (SQA), and
3. Configuration management (CM) -- for hardware/software

b. The contractor shall exploit appropriate PM management information system tools, including the PM Intranet resources, in support of these efforts. The goal is to minimize the effort spent in technical review and audit fact-gathering and report writing, and to maximize the time available for analyzing and reacting on the review/audit output results and conclusions.

3.4.1 GENERAL QA/SQA AND CM RESPONSIBILITIES

The following are tasks required of the contractor's QA/SQA/CM staff.

a. QA/SQA/CM Technical Plans and Documents: The PM will employ the standard configuration management practices and procedures identified in Mil-Std-973, MIL-STD_100 for Interpretation of Drawings and MIL-T 31000 for drawings.

b. QA/SQA/CM Support Engineering: The staff shall review and audit specifications, plans, engineering studies and analyses, and general contract data requirement deliverables. Review/audit products also include reviewing prime contract engineering output in the areas of systems level operation and maintenance procedures, performance improvements criteria, tools assessments, metrics management, configuration management, technical orders, maintenance practices, and technical orders.

c. Software QA And CM Processes: These processes and activities include, but are not limited to the following:

1. Functional Configuration Audit/Physical Configuration Audit (FCA/PCA),
2. Software management and change processes,
3. PM, and designated associate contractor Configuration Control Boards (as technical advisor),
4. Develop QA and CM procedures, and
5. Preparer of QA and CM activity results (Delivered reports include recommendations and proposed solutions).

d. Independent Verification and Validation (IV&V)Support: An IV&V team shall ensure via testing and validation procedures that the fielded system meets requirements and objectives, and shall help to reduce total system life cycle cost by promoting the discovery of design errors early in the system development. Products include reports, assessments, analyses, reviews, and independent tests.

3.4.2 CONFIGURATION MANAGEMENT

The contractor shall provide configuration management assistance for hardware and software to the PM. These efforts shall include but not necessarily be limited to baseline management, configuration management and configuration control audits. The contractor shall define a standard for "configuration management status accounting" record-keeping for the PM . The administration of these records will be retained by each of the PM product offices; however, the contractor shall assure the validity of the baseline configuration control

documentation through periodic audits, and assistance to the Product Managers in protecting their account status.

3.4.2.1 SYSTEM SUPPORT

a. The contractor shall review and analyze engineering drawings and associated lists for technical adequacy and conformance to contractual requirements and prepare a report detailing all discrepancies.

b. The contractor shall technically analyze new system concepts, test methods and Quality Assurance (QA) provisions prior to incorporation into the drawing package. Review maintenance operations for equipment in the field for technical adequacy and completeness. The contractor shall prepare a report detailing any inadequacies found and include recommendations for the resolutions of discrepancies.

c. The contractor shall maintain and update system documentation (i.e. system/subsystem and Software Unit Specifications, Drawings, Models, CAD/CAM Data, User, Computer Operation, and Program Maintenance Manuals.) Data Bank Maintenance and Operations Supports.

d. The contractor shall provide and supervise qualified contractor personnel on-site to maintain and operate data repository hereinafter referred to as the Data Bank. As required, the contractor shall:

1. Update and maintain hard copy, microfilm, and computer/data files to include drawings, configuration change documentation, specifications, standards, and technical manuals.
2. Perform routine preventative maintenance on a variety of on-site reproduction equipment (i.e., weekly cleaning, changing of chemicals, cleaning drums, etc.)
3. Perform generation and reproduction services (i.e., scan existing aperture cards to digital raster file, working size drawings/hard copy from aperture cards, bluelines, sepias, mylares, photopositives, viewgraphs, and reproduction and biding of technical manuals.
4. Establish and maintain a library of technical reports generated by and relevant to programs.
5. Provide graphics, and reproduction support for the presentation maintenance, and updating of specifications, standards, handbooks, Data Management Manual, and Data Management Standard Base.
6. Perform review and analysis of technical documents for proper format using the applicable specifications and standards for guidance.

3.4.2.2 STANDARDIZATION

The contractor shall provide support in the preparation, revision, amendments, and conversion of standardization documents.

3.4.2.3 BASELINE MANAGEMENT

The contractor shall maintain an active baseline file, updating the baselines as new items are approved. The contractor shall assist PM in monitoring the hardware and software contractors' configuration management efforts and make recommendations for correcting deficiencies and making improvements. The contractor shall conduct and/or participate in Physical Configuration Audits (PCA), Functional Configuration Audits (FCA), and Configuration Item Verification Review (CIVR) for selected projects.

3.4.2.4 CONFIGURATION CONTROL

a. The contractor shall review and analyze proposed technical changes to the PM functional, allocated, and product baselines, including new interfaces, draft impact assessments, and prepare comments from other PM contractors for presentation to the appropriate PM Configuration Control Board (CCB).

b. The contractor shall support the Configuration Control Board (CCB) actions on selected hardware and software projects, including impact of proposed changes, establishment of Configuration Baselines, preparation of Engineering Release Record (ERR) packages and implementation of approved ERR actions. Hardware projects, including all systems, models, and components identified for formal configuration control.

c. The contractor shall prepare recommendations for proposed upgrades and required documentation for the appropriate PM CCB, receive and process these potential baseline changes, place them under configuration control, and submit these to the Product Managers, or the appropriate PM Configuration Control Board (CCB), for consideration/approval.

d. The contractor shall review, evaluate, and maintain Configuration Management Plans (CMP) submitted to PM by contractors for control of hardware and software, and make comments for change as required. The review shall be conducted by the contractor using Mil-Std-973 as a guide. Reports of findings shall be submitted in a CMP Evaluation Report. The contractor shall prepare and revise hardware and software CMPs as requested by PM.

3.4.2.5 ENGINEERING CHANGES AND VALUE ENGINEERING

a. The contractor shall provide engineering input to Product Managers as value engineering changes (VECP), and proposed engineering changes

(P/ECP). The analyses submitted may consider engineering alternatives in computer-assisted technologies.

b. The contractor shall prepare documents for configuration management actions (i.e., Engineering Change Proposal (ECP), Request for Waivers (RFW), Request for Deviations (RFD), Notice of Revisions (NOR), Specification Change Notice (SCN), Drawings, Models, CAD/CAM data, and reproductions).

3.4.3 QUALITY ASSURANCE MANAGEMENT

The contractor shall manage the PM quality assurance program to be in consonance with the directed "(Software) Quality Assurance Plan(s)", or Contract Statements of Work (SOW), of the various contractors designated by the PM Product Managers. Default quality assurance methods, practices and procedures shall be derived from ISO 9000-1 and 9003, and software planning standards.

3.4.3.1 QUALITY ASSURANCE METRICS

3.4.3.1.1 SOFTWARE QUALITY METRICS

The contractor shall coordinate with each of the PM Product Managers to assist them in developing a "best practices" quality metrics process. A key emphasis of the "best practices" will be the identification of initiatives for product, progress and process improvements, and the control mitigation of technical/performance risks. The contractor shall receive Product Manager development contractor software and technical metric reports periodically (via deliverable contract data), and evaluate these for product, progress and process improvement. Software metrics shall comply with the guidelines established in DA Pamphlet 73-1, Test and Evaluation Procedures and Guidelines.

3.4.3.1.2 RELIABILITY, AVAILABILITY AND MAINTAINABILITY METRICS

The contractor shall assist the government with the maintenance and operation of trade-off model. The contractor shall interface with the prime contractor in collecting technical performance measures (TPM) data and analyses from predicted data and test data, evaluate allocated RAM requirements and system design to assess the ramifications to operational requirements and mission effectiveness, and recommend to the PM specific changes to satisfy SSS requirements.

3.4.3.1.3 TEST SUPPORT

The contractor shall attend QA related testing, analyze test anomalies, recommend corrective action, witness "tear down" actions, report results and

recommend actions to the appropriate PM Product Manager office to resolve non-compliance with requirements.

3.4.3.2 QUALITY ASSURANCE ANALYSES

a. The contractor shall perform analyses of hardware and software, with emphasis on process control, in order to determine whether the nominal process control and software assurance requirements are being satisfied. The contractor shall report development progress, problems, and recommend actions to the appropriate PM Product Managers to improve QA performance.

b. The contractor shall assist the Readiness Management Division Logistics Supportability functions by ensuring that PM quality assurance plans meet information collection and delivery requirements needed for Material Release; further, that these provide input to Materiel Release actions and all other Product Assurance activity related to Type Classification.

3.4.3.3 QUALITY ENGINEERING

The contractor shall perform quality engineering analyses and review environmental testing and qualification acceptance testing, review Software Anomaly Reports (SAR), Software Problem Reports (SPR), Test Incident Reports (TIR), Quality Discrepancy Reports (QDR), and provide analysis and recommendations where appropriate. Analyses shall include development of solutions where quality or reliability deficiencies exist.

3.4.3.4 TECHNICAL REVIEWS AND AUDITS

The contractor shall participate in design reviews and audits at the prime contractors' facilities, at the PM, and other locations, as necessary to assess progress against QA/SQA requirements. The contractor shall review and evaluate engineering, technical, and planning documentation for current and advanced systems. The documentation reviews may include: system specifications, design specifications, technical support documents, operational documents, test documents, and maintenance documents. As a minimum, the contractor shall provide identification of technical deficiencies, inconsistencies and obsolete methodology and data in documentation review.

3.4.3.5 DOCUMENT REVIEWS

a. The contractor shall review contractor produced documentation, as well as other Army and DoD documentation for compliance with contract standards/requirements and adequacy in supporting system development, quality, test, delivery, and field support.

b. All reviews shall include recommendations for improvement and proposed solutions. The following list characterizes the type of documents to be reviewed:

1. System Specifications,
2. Interface Requirements Specifications, or, Interface Control Documents,
3. Prime Item Design or Product Specifications,
4. Software and Hardware Requirements Traceability Reports,
5. Software Requirements Specifications,
6. Software Development Plan,
7. Software Metrics and Anomaly Reports,
8. Software Quality Program Plans, and Reports,
9. Software User Manuals,
10. Computer Software Operator Manuals,
11. Software and System Test Plans, Procedures, and Reports,
12. Version Description Documents,
13. Configuration Management Plans,
14. Risk Management Plans, and Reports.
15. Software Development Folders, and
16. Requirements Trace Matrix.

3.4.4 DIRECTED INDEPENDENCE VERIFICATION AND VALIDATION (IV&V)

3.4.4.1 DEVELOP SOFTWARE IV&V AUDIT/CHECKLIST FORMS

The contractor shall develop forms, based upon applicable project standards and procedures, which will be used to assess prime contractor work in the areas of software product development, quality assurance, configuration management, and test and evaluation.

3.4.4.2 AUDIT DEVELOPMENT CONTRACTOR SOFTWARE QUALITY ASSURANCE AND CONFIGURATION MANAGEMENT (SQA/CM)

The contractor shall audit SQA/CM participation in developer activities. SQA/CM effectiveness and compliance with project standards shall be evaluated. Technical reports shall be to document areas of concerns and recommendations for improving the evaluated contractor's SQA/CM effectiveness.

3.4.4.3 CONDUCT INDEPENDENT TESTING

When requested by the Product Manager, the contractor shall test the software against test issues and criteria established by government technical and operational test organizations. The objective of this testing shall be to identify functional, performance, or security deficiencies which could impact on the ability of the system to perform to government standards. The contractor shall develop

and maintain independent test plans and procedures. The test planning shall include:

1. Equipment requirements and configuration for test,
2. Deviations from target hardware and software configurations,
3. Test structure,
4. Test schedule,
5. Test limitations,
6. Test dependencies,
7. Data collection,
8. Operations/processes required to evaluate data,
9. Reporting of results,
10. Failure reporting, and
11. Maintenance of test and system logs.

3.5 INTEGRATED LOGISTICS SUPPORT

3.5.1 INTEGRATED LOGISTICS SUPPORT MANAGEMENT

The contractor shall maintain ILS management documentation to support type classification, integrated logistics support, logistics engineering, material release, materiel fielding, supportability, sustainment, Integrated Logistic Support Plan (ILSP), and other long range plans and studies as necessary in accordance with the appropriate regulations for PM sponsored systems. In support of these initiatives, the contractor shall develop milestone schedules and maintain continuity of all ILS deliverables.

3.5.2 LOGISTICS SUPPORT ANALYSIS (LSA)

The contractor shall provide technical assistance to ensure LSA and its reports are used in the development of PM sponsored systems. The contractor shall review, analyze, assess, and report on the prime contractors' LSA documentation being developed for PM sponsored systems. LSAR Master Files will be available.

3.5.3 MAINTENANCE PLANNING

The contractor shall assist in the development of maintenance concepts and plans which will describe the levels of maintenance to be used in fielding. The Contractor shall review all related system hardware contracts and all other Government provided planning ensure that all maintenance requirements and factors are captured and documented for PM sponsored systems. The contractor shall participate in all Logistics and Maintenance demonstrations, as well as ILS Management Team meetings and submit appropriate technical reports when requested by the Government.

3.5.4 TECHNICAL PUBLICATIONS

The contractor shall assist the Government in the compilation, review, and verification and validation; and, as directed by the Government, develop Technical Manuals and Documentation for PM sponsored systems. Assist the government in verification and if required with contractor validation.

3.5.5 LOGISTIC DEMONSTRATION/MAINTAINABILITY DEMONSTRATION

The contractor shall provide Subject Matter Expertise (SME) input to various logistics test and evaluation documents for PM sponsored systems. These include the logistics demonstration and the maintainability demonstration and various technical tests. The contractor shall assist in the development and confirmation of the adequacy of the system support package. The contractor shall develop fault insertion lists, red-line technical documentation, and develop ILSP.

3.5.6 PACKAGING, HANDLING, STORAGE TRANSPORTATION PLAN (PHST)

The contractor shall provide inputs to the PHST requirements for PM sponsored systems.

3.5.7 MATERIAL FIELDING

The contractor shall provide input in creating and updating the material fielding, delivery plans, and associated documents for PM sponsored systems. These actions shall include the necessary letters of notification, MOAs, conducting of site surveys, and assistance to the receiving units to provide the appropriate planning for facility requirements.

3.5.8 SUPPLY SUPPORT

The contractor shall provide assistance in the provisioning process and support in evaluating (1) the spares requirements and parts standardization and (2) the range and quantity of support items necessary to operate and maintain a system for the first year fielded. The contractor shall participate in all phases of the development of the sparing concepts through SSP and SSPCL development and validation to sustainment. The contractor shall support ILSMT meetings, participate in provisioning conferences, provide input to the sparing concept, ensure provisioning is accomplished during material fieldings and participate in demonstrations and tests. The contractor shall prepare and evaluate lessons learned based on fielded systems and post-production support.

3.5.9 TEST, MEASUREMENT, AND DIAGNOSTIC EQUIPMENT (TMDE)

The contractor shall provide input to the development and assistance with the evaluation of TMDE requirements for sponsored products. Test Requirements Documents will be provided.

3.5.10 TRAINING OF SPONSORED PRODUCTS

The contractor shall provide training support for PM sponsored products. Training initiatives shall address the development, implementation, and conduct of training for operators, supervisors, maintenance, and managers; evaluation of contractor developed training products; development of the Qualitative and Quantitative Personnel Requirements Base of Issue Plan; the Outline Individual; and Collection Training Plan, and New Equipment Training Plans. All training shall be developed in accordance with and evaluated against the tenets of Instructional Systems Development (DA Pamphlet 350-30) and MIL-STD-1379D, Contractor Training Programs. The contractor shall assist in coordination and scheduling of all training activities to ensure responsiveness to PM requirements. The contractor shall investigate and develop alternatives to the standard classroom methodology, i.e., distance learning and virtual classroom. As a minimum, when directed by the Product Manager, the contractor shall develop the following courseware:

1. Task and Skills Analyses,
2. Training Plans,
3. Instructor Lesson Plans,
4. Student Guides,
5. Audio/Visual Aids,
6. Computer Supported Learning Activities (Training Scenarios), and
7. Student Course Evaluation Forms.

3.5.11 DESIGN INFLUENCE AND INTEGRATION OF LOGISTICS

The contractor shall provide technical advice as it pertains to design reviews (IPRs, PDRs, CDRs, Monthly, and Quarterly reviews, etc.) for PM sponsored systems to insure that all logistical aspects have received appropriate consideration, advise the government of the full range of logistic impacts of system Training Software from requirements definition through acquisition and evaluation, and perform Logistics Engineering design trade-off analysis and support the evaluation of Operations and Support cost impacts on design changes. The contractor shall develop program test plans and procedures for an integrated diagnostics assessment of program support. The contractor shall provide reports of its evaluations of the prime contractor's efforts in achieving objectives in the above areas of ILS.

3.5.12 PROVISIONING

The contractor shall report on its technical analysis of provisioning requirements for PM sponsored systems.

3.5.13 STANDARDIZATION AND INTEROPERABILITY

The contractor shall evaluate and identify actions necessary to ensure standardization and interoperability of the system within Army, DoD and NATO and other allied countries for PM sponsored systems.

3.5.14 TRANSPORTABILITY PLANNING AND DOCUMENTATION

The contractor shall provide input to the transportability planning and the development of documentation under the DoD Engineering for Transportability for sponsored products. The contractor will participate in pre-material release activities and will coordinate for releases and approvals.

3.5.15 MANPOWER AND PERSONNEL INTEGRATION

The contractor shall assist the government in monitoring the development and evaluation of the MANPRINT aspects of the sponsored products. The contractor will provide human factor recommendations and participate in field surveys and design reviews.

3.6 INFORMATION TECHNOLOGY

The contractor shall support all computer-related management activities. The contractor's duties will include hardware research, specification, and installation. The contractor will also include software research, installation, and training of users. The contractor shall maintain a Help Desk facility to resolve users' problems and to track such activities. The contractor shall work towards minimizing redundant and paper-intensive tasks by implementing computer-based solutions where appropriate. Also, given the growing usefulness of the Internet in general and the World-Wide Web in particular, the contractor will facilitate access to Internet-based resources, and work to provide information to others – remote members of the Program Office as well as the general public – using this medium.

3.6.1 SYSTEMS MANAGEMENT

a. The contractor shall ensure that systems be available 95% of the time or as required by individual task orders. The systems shall be available twenty-four hours a day, seven days a week. The contractor shall provide notification to the PM POC in the event that a system or systems will be unavailable for any period of time greater than 15 minutes. The contractor IT Manager or his

representative shall attend all meetings related to the LAN. All contractor IT managed systems shall conform to security guidelines described below under Information Security. When enhancements, upgrades or additional systems are required the contractor shall work with the PM POC to clearly identify the requirements. The contractor shall then develop enhancements, upgrades or additional systems according to Government approved design plans.

b. The contractor shall provide technical staff for PM Network Services operations. This will include server(s) system administration, Help Center support, PC technical support for hardware and software maintenance, and maintenance of the on-line filing system.

3.6.2 LAN ADMINISTRATION/MAINTENANCE

The contractor shall support a PC-based workstation for each employee assigned to the PM. The workstations shall be configured to access the LAN and software packages for office productivity (spreadsheet, word processing, scheduling), electronic mail and internet web-browsing shall be provided and configured. The contractor shall provide remote access to the PM LAN for authorized personnel. The remote access shall allow users to access electronic mail, shared files on the LAN and internet connectivity. The contractor shall conduct various type of engineering and ILS investigations and efforts to support the work described herein.

3.6.3 SUPPORTING SERVICES

a. The contractor shall provide the capability to print documents from any LAN workstation to a network printer.

b. The contractor shall provide public hard disk space on the network servers for commonly used file access.

c. The contractor shall provide individual hard disk space on the network servers enabling users to backup workstation data and providing supplemental hard disk space.

d. The contractor shall maintain PM databases. Database maintenance shall include access maintenance, database backups and modifications as required.

e. The contractor shall develop and maintain a PM intranet for simple and efficient file management and sharing within the PM.

f. The contractor shall maintain a PM LAN configuration database. The contractor shall maintain a system for dealing with assistance requests. The system must address acknowledgement of all requests within one hour, a

procedure for service, based on criticality, and an estimate of time to repair. Equipment that continues to cause user problems should be identified for repair or replacement.

g. The contractor shall provide Helpdesk support during the core hours of 7:00AM to 4:30PM or as required on specified Task Orders . The contractor shall maintain a service call database that tracks all IT related service calls. Contractor Helpdesk personnel shall be available by phone and electronic mail during core hours and shall enter all service calls into the service call database and notify other members of the contractor of the call. The contractor shall respond to all service calls within one hour and resolve all service issues.

3.6.4 INTERNET SERVICES

The contractor shall coordinate with the POC's of government facilities to ensure connectivity to the Internet. This connectivity will allow basic TCP/IP services to be used between PM and hosts on the Internet. These include Telnet, FTP, and HTTP protocols. The contractor shall maintain a Firewall between the PM LAN and the Internet to prevent unauthorized access to local machines. The Firewall allows several basic TCP/IP services to pass through it after authorization and packet analysis, but the Contractor shall create additional proxy services to allow other TCP/IP protocols to pass through it for mission-related activities. Maintenance of the Firewall necessitates the maintenance of local a Domain Name Service, which shall be run on two different servers. The contractor shall provide Simple Mail Transfer Protocol (SMTP) connectivity between PM and the Internet via the connection through Fort Belvoir.

3.6.5 WEBSITE MAINTENANCE AND DEVELOPMENT

The contractor will maintain a web server for the hosting of PM World-Wide Web pages for the public. The contractor shall update existing Web pages and create new ones as needed. They shall track web site usage statistics and present reports based on those numbers.

3.6.6 HARDWARE AND HARDWARE MAINTENANCE

a. The contractor shall perform hardware maintenance for all contractor IT managed systems and shall determine whether the most cost effective method of repair is off-site or on-site. The contractor shall coordinate with the PM Property Book Officer on all off-site repairs, equipment replacement, the return of equipment to vendors, or the movement of equipment from one work station to another.

b. The contractor shall specify the required connection equipment (such as switches, dial-in modems, VTC equipment, printers, and NIC cards). The contractor shall identify any required new desktop or portable hardware.

3.6.7 SOFTWARE

The contractor shall determine whether Standard COTS software will be provided to support all current and planned PM processes.

3.6.8 FILING SYSTEM

The contractor shall maintain the filing system on the appropriate server(s). A standard operating procedure will be written and training provided to facilitate rapid acceptance of this filing system by all PM personnel. The filing system will include an open “users” section, a protected “public” section, and an official storage “archives” section. Routine backups and files housekeeping procedures should be part of the system.

3.6.9 ELECTRONIC MAIL AND CALENDARS

The contractor shall utilize the Exchange server and Outlook, the PM network service will allow PM (core and matrix) personnel to receive email and view appropriate calendars. The PM email address will remain the same.

3.6.10 REMOTE OPERATIONS

The contractor shall ensure the PM has excellent remote access to the Expanded LAN Support System. The present system is a high-speed multi-user modem-based dial in system.

3.6.11 VIDEO TELECONFERENCE CENTER

The contractor shall provide support and assistance with the VTC center(s): monitor equipment to assure it is operational, report problems that require repair or replacement to the government, assist personnel in the set up of VTCs and operation of equipment.

3.6.12 BRIEFINGS AND REVIEWS

The contractor may be asked to attend briefings related to the Expanded LAN Support System. There will be a kick-off meeting shortly after the award of the contract, briefings in conjunction with system decision points, and quarterly in process reviews to summarize status, identify outstanding issues and discuss optional solution with the government.

3.6.13 INFORMATION SECURITY

The contractor shall be responsible for information security on the PM LAN and shall ensure that all systems are current and any security patches or fixes are applied. The contractor shall follow security guidelines as provided by

the Army Computer Emergency Response Team (ACERT). The contractor shall follow security directives from the PM.

3.6.14 USER TRAINING

The contractor shall provide familiarization computer training. The primary emphasis will be on desktop operating system, word processing, spreadsheet, graphics, electronic mail and scheduling packages. The contractor shall design training programs on the approved commercial or agency supplied software packages. This training shall be of sufficient length and detail to allow the user to acquire different levels of expertise as desired.

3.7 PROJECT ADMINISTRATION SUPPORT SERVICES

3.7.1 GENERAL ADMINISTRATIVE REQUIREMENTS

The contractor shall perform the following administrative services in support of PMs. The contractor's employees shall remain under the contractor's direct supervision at all times. Although the Government will coordinate directions and tasks within the scope of the contract, detailed instructions for contractor employees shall remain the responsibility of the contractor.

3.7.1.1 CLERICAL ADMINISTRATIVE SUPPORT

The contractor shall support the project offices with an administrative support pool for typing, word processing, and data entry tasks. This support pool will involve no more than one or two personnel and will be physically separated from the government personnel. The supervision and direction of the personnel in that pool shall remain the responsibility of the contractor. All word processing tasks requested by PM must be accompanied by a task order form available at the service desk. The requester's government supervisor will establish a priority, sign the work order, and leave it with the service desk. Completed work is passed back to the government through the service desk operated by the contractor. This individual is not to perform any of the typical secretarial functions such as filing, telephone answering, travel coordination, or any other task in support of any specific government worker.

3.7.1.2 MAIL RECEIPT AND DISTRIBUTION

The contractor shall process all official incoming and outgoing mail, documentation and packages, sort and provide for appropriate distribution, collect all official outgoing mail and packages, and deliver to mail room or to appropriate personnel in the PM. In addition, the contractor shall operate a full service distribution center.

3.7.1.3 REPRODUCTION AND EXPENDABLE SUPPLIES

The contractor shall provide central reproduction service and maintain satellite copier stations as appropriate for individual task orders. The contractor shall manage all reproduction activities for office personnel, and maintain and operate reproduction machines. In addition, the contractor shall order, control, and maintain adequate stock levels issue; and account for consumable supplies.

3.7.1.4 SECURITY SUPPORT

a. The contractor shall ensure that all personnel on-site shall have SECRET clearance. Contractor personnel shall adhere to government requirements for security badges at all government and affiliated contractor facilities. Contractor shall provide individuals with appropriate clearances, depending on need-to-know. Clearances will be up to TS/SCI.

b. The contractor shall provide support for the following tasks:

1. Maintaining the incoming visitor database;
2. Identification Badges for incoming visitors;
3. Maintaining PM personnel clearance database to include outgoing collateral Clearances;
4. Preparing civilian Ids, requesting Pentagon Passes, and fingerprinting;
5. Logging in of Collateral Classified documents,

Maintaining SCI clearance database for incoming SCI clearances; and

3.7.2 SOFTWARE EVALUATION FACILITY

The contractor shall provide facility support to oversee the day-to-day operations. In addition to technical engineering and development taskers, the support contractor shall assist the government in property accountability, configuration management, hardware configuration, execution of demonstrations and access control.

3.7.3 GRAPHICS SUPPORT

The contractor shall prepare artwork, charts, viewgraphs, and graphs and convert them into 35m, black and white, color slides, if needed, for meetings and briefings using Government-owned computers with government owned software. This includes periodic support to PM field 1ocations and remote sites. This graphics support pool is physically separated from government personnel and the supervision of graphics personnel is the responsibility of the contractor. The contractor shall update and maintain a graphics database of all artwork, charts, viewgraphs, slides etc. that were developed in the past, as well as all future work.

The contractor shall provide artwork and layouts for advertisements, award certificates and plaques.